

HONORABLE DAVID G. ESTUDILLO

UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF WASHINGTON  
AT TACOMA

GABRIELLA SULLIVAN, et al.,

*Plaintiffs,*

v.

BOB FERGUSON, et al.,

*Defendants,*

and

ALLIANCE FOR GUN  
RESPONSIBILITY,

*Intervenor-Defendant.*

No. 3:22-cv-05403-DGE

DECLARATION OF DR. EILEEN  
BULGER IN SUPPORT OF  
ALLIANCE FOR GUN  
RESPONSIBILITY'S CROSS-  
MOTION FOR SUMMARY  
JUDGMENT

NOTE ON MOTION CALENDAR:  
October 16, 2023

I, Dr. Eileen Bulger, declare and state as follows:

1. I am over the age of eighteen (18) years, competent to testify to the matters contained in this declaration, and testify based on my personal knowledge and information.

2. I am a trauma surgeon at Harborview Medical Center ("Harborview") in Seattle, Washington. I currently serve in the roles of Surgeon-in-Chief at Harborview and Chief of the Division of Trauma, Burns, and Critical Care for the University of Washington, Department of Surgery. I frequently treat gunshot victims.

DECL. OF DR. EILEEN BULGER IN SUPPORT OF ALLIANCE'S  
CROSS-MOTION FOR SUMMARY JUDGMENT - 1  
3:22-cv-05403-DGE

PACIFICA LAW GROUP LLP  
1191 SECOND AVENUE  
SUITE 2000  
SEATTLE, WASHINGTON 98101-3404  
TELEPHONE: (206) 245-1700  
FACSIMILE: (206) 245-1750

8 I hereby declare that the above statement is true to the best of my knowledge and belief,  
9 and that I understand it is made for use as evidence in court and is subject to penalty for perjury.

12  
13

  
Dr. Eileen Bulger

**CERTIFICATE OF SERVICE**

I hereby certify that on this 1st day of September, 2023, I electronically filed the foregoing document with the Clerk of the United States District Court using the CM/ECF system which will send notification of such filing to all parties who are registered with the CM/ECF system.

DATED this 1st day of September, 2023.

  
\_\_\_\_\_  
Legal Assistant

# EXHIBIT A

## **Expert Report of Dr. Eileen Bulger**

**Prepared for Intervenor-Defendant Alliance for Gun Responsibility in**

**Western District of Washington Case No. 3:22-cv-05403-DGE**

***Gabriella Sullivan, et al.,* plaintiffs**

**v.**

***Bob Ferguson, et al.,* defendants,**

**and**

***Alliance for Gun Responsibility,* intervenor-defendant**

Dated: April 30 2023

Signed: \_\_\_\_\_



Dr. Eileen Bulger  
Surgeon-in-Chief  
Harborview Medical Center

1. I am a trauma surgeon at Harborview Medical Center (“Harborview”) in Seattle, Washington. I currently serve in the roles of Surgeon-in-Chief at Harborview and Chief of the Division of Trauma, Burns, and Critical Care for the University of Washington, Department of Surgery.

2. I attended medical school at Cornell University Medical College before doing my residency in general surgery at the University of Washington at Harborview. During residency, I completed an NIH trauma research fellowship and following residency I completed a surgical critical care fellowship, both at Harborview. Since then, I have worked as a trauma surgeon at Harborview. I am also a Professor in the Department of Surgery of the University of Washington. A copy of my CV is attached as **Exhibit A**, which includes a list of publications I have authored. I have not testified as an expert at trial or by deposition in any other case in the past four years.

3. In preparing this report, I reviewed the declarations of two other physicians who have testified in similar lawsuits: Dr. Mackenzie Cook of Oregon Health and Science University (*Oregon Firearms Federation v. Kotek*, No. 2:22-cv-01815-IM (D. Or.) (lead case)) and Dr. Megan Ranney of the Brown University Medical School (*Ocean State Tactical, LLC v. State of Rhode Island*, No. 22-CV-246 JJM-PAS (D.R.I.)). I agree with the points made in their declarations, which

served as useful starting points for this report. In the interest of full disclosure, I helped train Dr. Cook during his surgical critical care fellowship at Harborview.

4. Harborview is home to the only Level 1 Adult and Pediatric trauma center in Washington, and is the only such facility serving the states of Washington, Alaska, Montana, and Idaho. Harborview is one of the busiest trauma centers in the country; we treat more than 7,000 trauma patients a year.

5. As part of my work, I frequently treat gunshot victims. There is some seasonality to gunshots wounds, and we generally see more victims of all categories of violent crime in the summer than we do in the winter. In the last few years, Harborview has treated over 500 cases of firearm injuries each year.

6. The Alliance for Gun Responsibility asked me to share my perspective as a medical expert on the impact that multiple gunshot wounds can have on the patients that I treat. It is my hope that my testimony can lead to fewer deaths from gun violence in our state. I am not being compensated for my time or expert services.

7. It may seem obvious that victims with more gunshot wounds are more likely to die or face serious health consequences. But the relationship is not linear, with each bullet wound increasing the risk of death or serious harm by a comparable degree. The risks to the patient increase markedly with each bullet wound, for several reasons.

8. The more times a patient has been shot, the more likely it is that a critical structure is struck. Critical structures include the heart, lungs, brain, liver, kidneys, major blood vessels, and other internal organs. Although even a single bullet wound can be fatal, gunshots to the chest, abdomen and head are often the most serious wounds. They are the most likely to lead rapidly to death, frequently before the patient arrives at the hospital. My experience with victims of multiple gunshot wounds to the chest and abdomen is that there are often multiple, simultaneous injuries—each of which is life threatening. When a critical structure such as the heart suffers serious damage, there is often little or nothing a surgical intervention can do to save the patient. In such cases, the patient may die at the scene or on the way to the hospital.

9. Even without direct and significant damage to a critical structure, the presence of multiple bullet wounds complicates treatment decisions. Fundamentally, treating a patient with multiple gunshot wounds is a race against blood loss. For the patient, it is essential to control the bleeding and provide blood transfusions faster than the patient is losing blood. The more injuries there are, the more organ spaces they are spread across (e.g., chest, abdomen, pelvis, legs, arms), the harder it is to win that race. Multiple gun-shot wounds often require what we call a “damage control” approach, where we initially stop the bleeding and then pause the



operation—sometimes for days—to allow the patient to stabilize in the intensive care unit before returning for reconstruction of the injuries.

10. Of course, many patients who are shot do not die. Patients who survive, however, have a very high risk of developing post-traumatic stress disorder (PTSD) and chronic pain. In a recent study reviewing survivors of firearm injuries, 49%-60% screened positive for PTSD within 6 months of their injury.<sup>1</sup> The risk of PTSD may not be directly related to the severity of injury, and can be very debilitating. In fact, survivors of firearm injuries usually report worse long-term outcomes when compared to similarly injured motor vehicle collision survivors.<sup>2</sup> If their injuries are severe, their quality of life may be much less than before the injury. Bullet injuries to the spinal cord can be particularly devastating as they often result in life-long paralysis and there is nothing that can be done to repair this damage. I have also personally seen bullet wounds result in disfiguring facial wounds, loss of the use of a dominant hand, amputation of an extremity, severe kidney injury requiring dialysis, and intestinal injuries so severe that a life-long colostomy was required.

11. A separate but related challenge can occur when a hospital receives multiple victims with gunshot wounds at the same time. Due to the nature of firearm

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<sup>1</sup> C. Orlas, et al., *Long-term Outcomes of Firearm Injury Survivors in the United States: The National Trauma Research Action Plan Scoping Review*, 274 *Annals of Surgery* 6, 962-970 (Dec. 15, 2021).

<sup>2</sup> *Id.*

injuries, it is usually significantly more challenging to treat multiple patients with gunshot wounds than, say, a comparable number of patients that were in traffic accidents. Patients with gunshot wounds are more likely to require blood transfusions and surgery. Even at a Level 1 trauma center like Harborview, we have a limit to the available staff and resources on short notice. A large influx of patients with gunshot wounds, as would happen in the event of a mass shooting, or several shootings in one night, would strain our resources and can lead to delays in care while more staff are mobilized to respond. We would be forced to triage patients based on these limited resources and a mass casualty incident such as this would also significantly impact our ability to provide care to other patients in the hospital.

12. We also could be affected by a mass shooting outside of the King County area. As the largest trauma center serving a four state area, we frequently receive patients from smaller hospitals. If a smaller hospital were overwhelmed as the result of a mass shooting, we would be called upon to help manage the load of patients, in conjunction with the entire regional trauma system. A large shooting event in a rural setting would likely have a very high mortality rate as the resources of a smaller hospital can be quickly overwhelmed and the time needed for transport to a larger hospital system makes it harder to win the race against blood loss.

13. In recent years, doctors in trauma centers across the country have been troubled by what appears to be an increase in the number and severity of gunshot

victims that we treat. For example, Harborview treated 308 gunshot victims in 2018, 401 gunshot victims in 2020, and 526 gunshot victims in 2022. Our colleagues studying the data have largely confirmed that this increase in gun violence is not limited to Western Washington.<sup>3</sup>

14. As part of efforts to address the growing problem, many doctors have embraced the idea that we should take a public health approach to addressing gun violence.<sup>4</sup> This approach involves treating gun violence more similarly to things like motor vehicle crashes and smoking. I see Washington's restrictions on large capacity magazines as being consistent with such a public health approach.

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<sup>3</sup> See, e.g., B. Kalesan, et al., *A multi-decade joinpoint analysis of firearm injury severity*, 3 Trauma Surgery & Acute Care Open 1 (2018), <https://tsaco.bmj.com/content/3/1/e000139>; H.M. Bailey, et al., *Changes in patterns of mortality rates and years of life lost due to firearms in the United States, 1999 to 2016: A joinpoint analysis*, PLoS One 14(11) (Nov. 22, 2019), <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0225223>; P.J. Brantingham, et al., *Assessment of Case Fatality Rates and Overall Prevalence of Firearm Violence in California, 2005-2019*, JAMA Netw Open (Jan. 28, 2022), <https://pubmed.ncbi.nlm.nih.gov/35089356/>.

<sup>4</sup> UW Medicine, *Harborview chief of trauma says a public health approach needed to address gun violence*, Kent Reporter, August 5, 2019, available at <https://www.kentreporter.com/news/harborview-chief-of-trauma-says-a-public-health-approach-needed-to-address-gun-violence/>.

# EXHIBIT A

## CURRICULUM VITAE

**Eileen Metzger Bulger, M.D., F.A.C.S.****WORK INFO:**

|               |   |
|---------------|---|
| Work Address: | Box 359796, Dept of Surgery<br>Harborview Medical Center<br>325 Ninth Ave.<br>Seattle, WA 98104 |
| Work Phone:   | (206) 744-3564  |
| Fax:          | (206) 744-3656  |
| E-mail:       | ebulger@uw.edu  |

**EDUCATION:**

|  |           |      |
|--|-----------|------|
| The Johns Hopkins University<br>Baltimore, Maryland      | 1984-1988 | B.A. |
| Cornell University Medical College<br>New York, New York | 1988-1992 | M.D. |

**POSTGRADUATE  
EDUCATION:**

|   |           |                                      |
|---|-----------|--------------------------------------|
| University of Washington<br>Seattle, Washington | 1992-1999 | Residency<br>General Surgery         |
| University of Washington<br>Seattle, Washington | 1995-1997 | NIH Trauma<br>Research Fellowship    |
| University of Washington<br>Seattle, Washington | 1999-2000 | Surgical Critical Care<br>Fellowship |

**ACADEMIC APPOINTMENTS:**

|  |      |
|--|------|
| Assistant Professor<br>Department of Surgery<br>University of Washington | 2000 |
| Associate Professor<br>Department of Surgery<br>University of Washington | 2004 |
| Full Professor<br>Department of Surgery<br>University of Washington      | 2009 |

**HOSPITAL APPOINTMENTS:**

|                          |                                    |              |
|--------------------------|------------------------------------|--------------|
| <b>Attending Surgeon</b> | University of Washington Hospitals | 2000-present |
|--------------------------|------------------------------------|--------------|

|  |  |              |
|--|--|--------------|
|  | Harborview Medical Center<br>University Hospital<br>Seattle Cancer Care Alliance                 |              |
| <b>Surgeon-in-Chief</b>  | Harborview Medical Center  | 2022-present |
| <b>Chief, Division of Trauma,<br/>Burn, Critical Care Division</b> | University of Washington   | 2022-present |
| <b>Associate Medical Director:<br/>Surgical Services</b>           | Harborview Medical Center  | 2021-present |
| <b>Chief of Trauma</b>   | Harborview Medical Center<br>Trauma Medical Director:<br>Adult and Pediatric Level I designation | 2012-present |
| <b>ECLS Program Medical Director</b>                               | Harborview Medical Center  | 2015-present |
| <b>Associate Medical Director:<br/>Emergency Services</b>          | Harborview Medical Center  | 2009-2012    |
| <b>Director of Emergency Services</b>                              | Harborview Medical Center  | 2009-2012    |
| <b>Interim Director<br/>of Emergency Services</b>                  | Harborview Medical Center  | 2008         |
| <b>Associate Director of<br/>Emergency Surgical Services</b>       | Harborview Medical Center  | 2000- 2008   |
| <b>BOARD CERTIFICATION:</b>  |  |              |
|  | National Board of Medical Examiners  | 1992         |
|  | Advanced Trauma Life Support Instructor  | 2000         |
|  | Diplomat, The American Board of Surgery  | 2000         |
|  | Recertified (Term extended for ABS service)  | 2008         |
|  | Recertified  | 2020, 2022   |
|  | Surgical Critical Care Certification,<br>The American Board of Surgery                           | 2001         |
|  | Recertified (Term extended for ABS service)  | 2009         |
|  | Recertified  | 2020, 2022   |
| <b>LICENSURE TO PRACTICE:</b>                                      |  |              |
|  | Washington   | 1992-present |

**HONORS & AWARDS:***CURRENT*

Outstanding Contributions to International Trauma Care  
 Academy of Sciences, Saudi Arabia, 2022  
 Norman McSwain Leadership in EMS Award  
 National Association of Emergency Medical Technicians, 2022  
 John L. Stevenson Award for Resident Teaching 2021  
 UW Department of Surgery Distinguished Alumni Award, 2016  
 American College of Surgeons/American Surgical Association  
 Health Policy and Leadership Scholarship, 2016  
 HMC Cares Award: ECLS Leadership Team, 2016  
 Outstanding Consultant Award, UW Medicine Emergency  
 Medicine, 2013  
 Castle Connolly Top Doctor Recognition: 2012, 2013, 2016,  
 2019, 2020, 2022  
 US News and World Report Top Doctors Recognition 2011  
 Seattle's Top Doctors Recognition, Seattle Magazine: 2010, 2011,  
 2018, 2019, 2020, 2022  
 Mentor for Best Clinical Paper, State of Washington  
 Sam Mandell, MD, ACS Committee on Trauma, 2008  
 UW Medicine Service Excellence Award (HMC Cares), 2008  
 Mentor for Western Trauma Association Resident/Student  
 Best paper award Keir Warner, 2008  
 Mentor for Eastern Association for the Surgery of Trauma  
 Resident Research Scholarship, Sam Mandell, 2008-2009  
 Mentor for Seattle Surgical Best Clinical Paper  
*Keir Warner, 2007*  
 Mentor for Region X Committee on Trauma Best Clinical Paper  
 Sharmilla Dissanake, 2006  
 University of Washington, Department of Surgery  
*Resident Teaching Award, 2005*  
 Mentor for Henry Harkins Resident Paper Competition 1<sup>st</sup> Place  
 Daniel Anaya, MD, Washington State Chapter ACS, 2005  
 Mentor for Surgical Infection Society Best Resident Poster  
 Daniel Anaya, MD Surgical Infection Society, 2005  
 Peter C. Canizaro Award: American Association for the Surgery  
 of Trauma, 2004  
 Mentor for Surgical Infection Society Best Resident Paper  
 Daniel Anaya, MD Surgical Infection Society 2004  
 Mentor for Young Investigator Award Winner,  
 David Gourlay, MD, Shock Society, 2002  
 American Association for the Surgery of Trauma  
 Wyeth-Ayert Research Scholarship Award, 2001  
 John H. Davis Research Scholarship Award, 2002

*RESIDENCY/FELLOWSHIP* Henry Harkins Award- 2nd Place, Residents Paper Competition  
ACS Washington State Chapter, 1994  
Best Basic Science Paper- Regional resident paper competition,  
ACS: Committee on Trauma, 1995  
Seattle Surgical Society-Best Resident Paper 1996  
Young Investigator Award Finalist-Shock Society 1996  
Travel Award Grant- Shock Society 1996  
Runner-up Best Basic Science Paper- Regional resident paper competition,  
ACS: Committee on Trauma, 1996  
Travel Award Grant- Shock Society, 1997  
Travel Award Grant- Society for Leukocyte Biology, 1997  
Pacific Northwest Vascular Society  
Resident paper competition, 3rd place, 1998  
Resident/Medical Student Teaching Award, 1999  
Harborview Medical Center Resident of the Year, 1999  
Best Basic Science Paper- Regional Resident paper competition, ACS-  
Committee on Trauma, 1999  
First place for best paper presented at the Helen & John Schilling Research  
symposium, 2000

*MEDICAL SCHOOL* Alpha Omega Alpha, Junior and Senior Year, 1991 & 1992  
NIH Summer research fellowship & Letter of Commendation, 1989  
The John Metcalf Polk Prize, 1992  
(Awarded to the 3 highest ranking graduates)  
The Janet M. Glasgow Memorial Award, 1992  
(Awarded to the highest ranking woman graduate)  
The Clarence C. Coryell Prize in Surgery, 1992  
Gate Pharmaceutical Award for Outstanding Achievement  
in General Surgery, 1992  
The Ralph I. Poucher Prize for Proficiency in  
Obstetrics and Gynecology, 1992  
The Elise Strang L'Esperance Prize in Public Health, 1992  
Certificate of Commendation for Community Service  
Veterans of Foreign Wars, 1989

*UNDERGRADUATE* Phi Beta Kappa, 1988  
Degree with Departmental and General Honors, 1988  
Fight for Sight Student Fellowship, 1987



**PROFESSIONAL  
SOCIETIES:**

|  |                         |
|--|-------------------------|
| American College of Surgeons           |                         |
| Associate member                       | 1992-2002               |
| Fellow                                 | 2002-present            |
| ACS Washington State Chapter           |                         |
| Councilor                              | 2003 to 2006            |
| Program Chair                          | 2006                    |
| President                              | 2010                    |
| The Henry N. Harkins Surgical Society  | 1998-present            |
| Shock Society                          | 2000-present            |
| Scientific Program Committee           | 2003-2006               |
| Clinical Science Councilor             | 2006-2009               |
| Honors and Awards Committee            | 2010-2012               |
| Chair                                  | 2012                    |
| Publication Committee                  | 2021                    |
| Membership Committee                   | 2020-2021               |
| Society of Critical Care Medicine      | 2000-2006               |
| Reviewer: Critical Care Medicine       |                         |
| Surgical Infection Society             | 2001-present            |
| Membership committee                   | 2002-2005               |
| Scientific Program Committee           | 2006-2009               |
| Association for Academic Surgery       | 2002-2004               |
| Reviewer: Journal of Surgical Research | 2003-present            |
| Editorial Board: J Surgical Research   | 2006-2010               |
| American Association for the           |                         |
| Surgery of Trauma                      | 2002-present            |
| Manager at Large                       | 2012-2015               |
| Secretary-Treasurer                    | 2016-2019               |
| President-Elect                        | 2021                    |
| Injury Assessment & Outcome Committee  | 2004-2008               |
| Program Committee                      | 2008-2010, 2016-2019    |
| Awards & Honors Committee              | 2015-present            |
| Disaster Committee                     | 2014-present            |
| Acute Care Surgery Committee           | 2016-present            |
| Board of Managers                      | 2012-2019, 2021-present |
| Seattle Surgical Society               | 2002-present            |
| Association for Surgical Education     | 2003-2006               |
| ACS Committee on Trauma                | 2002-present            |
| Vice Chair Washington State            | 2002-2003               |
| State Chair, Washington State          | 2003-2006               |
| Region Chief, Region X                 | 2006-2012               |
| Disaster Preparedness Committee        | 2003-present            |
| Trauma System Committee                | 2006-present            |
| EMS Committee                          | 2003-present            |
| Chair                                  | 2011-2015               |
| Liaison to Evidence-based              |                         |
| Prehospital Guidelines Consortium      | 2013-2018               |

|  |              |
|--|--------------|
| Rural Trauma Committee                 | 2003-present |
| Resident Paper Competition Judge       | 2006-2009    |
| Regional Committee on Trauma           |              |
| Board of Directors                     | 2010-2012    |
| Chair, Membership Committee            | 2014-2018    |
| Executive Committee                    | 2014-present |
| Verification Site Reviewer             | 2016-present |
| Chair, National Committee              | 2018-2022    |
| Medical Director                       | 2022-2026    |
| Society of University Surgeons         | 2004-2018    |
| Surgical Biology Club III              | 2006-2015    |
| American Surgical Association          | 2013-present |
| Coalition for National Trauma Research |              |
| Chair, Board of Directors              | 2020-present |
| Women In Trauma Surgery                |              |
| Founding member                        | 2020         |

## CONTRIBUTIONS TO DIVERSITY, EQUITY AND INCLUSION

- Established a DEI task force within the American College of Surgeons Committee on Trauma to address diversity of membership and ensure maximal opportunities for member engagement, 2019
- Established a DEI committee within the Coalition for National Trauma Research to support research mentorship opportunities for URM in Medicine and the ensure that research proposals and publications appropriate represent health disparities and race/ethnicity reporting, 2020
- Represented the ACS Committee on Trauma in the ACS Anti-Racism Summit and supported the development of a grant to develop a mentoring program for URM High school students interested in learning more about trauma surgery. 2021
- Worked with HMC leadership, King County Public Health and the Health Alliance for Violence Intervention to develop a Hospital-based Violence Intervention program at Harborview Medical Center, 2020-21
- Established the Improving Social Determinants to Attenuate Violence (ISAVE) team sponsored by the ACS Committee on Trauma to develop strategies to reduce interpersonal violence among high-risk populations, 2020
- Worked with a team including members of ISAVE and the Institute for Non-Violence to develop a national curriculum for Trauma Informed Care to be piloted at trauma centers across the US next year and initiated the process for Harborview Medical Center to be one of the pilot centers, 2020-2021
- Advisory Board member for a National Study of Non-fatal Firearm Injuries being led by the ACS Committee on Trauma and funded by the National Collaborative on Gun Violence Research. 2020
- Advisory Board member for Injury-related Health Equity Across the Lifespan program (iHEAL) at the Harborview Injury Prevention and Research Center 2018-present
- Developed a Trauma Survivor's Network Chapter at Harborview Medical Center which incorporates peer support for patients in the hospital following acute injury and engaged firearm injury survivors in this program, 2016.

- Mentored Dr. Katherine Stadel to develop a program to build trust between the Somali Community in Seattle and the Seattle Fire and Police Departments through culturally competent Stop the Bleed training. Currently developing a tool kit that will allow this program to be adopted in other cities,
- Founding member of the Women in Trauma Surgery Group (WITS), now supported by the American Association for the Surgery of Trauma, which engages surgeons from across the globe to network and discuss issues relevant to career development and work-life integration for all genders, 2020.

**UNIVERSITY/  
HOSPITAL  
ACTIVITIES**

|  |              |
|--|--------------|
| Surgical Education Committee<br>University of Washington                 | 2000-2005    |
| Assistant Program Director<br>Univ. of Washington Surgical Residency     | 2002-2005    |
| Faculty Senator<br>University of Washington                              | 2002-2004    |
| Core Investigator<br>Harborview Injury Prevention<br>and Research Center | 2003-present |
| Dean's Committee on Women in Medicine<br>University of Washington        | 2005         |
| Grant Reviewer<br>Medic One Foundation                                   | 2007-present |
| Member, Search Committee<br>Division Chief, Emergency Medicine           | 2008         |
| Member, Search Committee<br>Dept of Hematology, Puget Sound Blood Ctr    | 2008         |
| Grant Reviewer<br>UW Royalty Research Fund                               | 2008,2010    |
| Team Stepps Master Trainer   | 2009-present |
| Member, Search Committee<br>Division of Emergency Medicine               | 2009         |

|  |              |
|--|--------------|
| Member, Search Committee<br>Chair of Anesthesiology                        | 2012         |
| Member, Search Committee<br>Orthopedic Trauma Division                     | 2012         |
| Department of Surgery<br>Peer Support Leader                               | 2014-present |
| Member, Search Committee<br>Chair of Department of Surgery                 | 2016         |
| Member, Promotions Committee<br>Department of Surgery                      | 2020-present |
| UW Medicine Peer Supporter   | 2020         |
| Member, Search Committee<br>Chair, Department of Anesthesiology            | 2021         |
| Chair, Search Committee<br>Chief of Anesthesia, Harborview Medical Center  | 2021         |
| Director, AMTC3 Military-Civilian Partnership<br>Harborview Medical Center | 2021         |

#### **NATIONAL ACTIVITIES**

|   |             |
|---|-------------|
| Measurement of Quality & Outcomes<br>Subcommittee Member<br>Acute Care Research Agenda<br>Centers for Disease Control | 2004        |
| Reviewer: Special Emphasis Panel<br>NIH/NIGMS Trauma Program grants   | 2004        |
| Reviewer: Special Emphasis Panel<br>NIH/NIGMS Loan Repayment App  | 2005        |
| Reviewer: Special Emphasis Panel<br>NIH/NIGMS Multicenter clinical trial  | 2007        |
| Reviewer: Surgery, Anesthesia, and Trauma<br>Study Section NIH  | 2008-2013   |
| Reviewer: Special Emphasis Panel<br>NIH/NIGMS Trauma Program Project grant  | 2009 & 2010 |

|  |            |
|--|------------|
| Reviewer: Special Emphasis Panel<br>NIH/NIGMS R34 Clinical trial planning grants   | 2012       |
| Reviewer: Special Emphasis Panel<br>NIGMS Clinical trial review  | 2012       |
| Invited Reviewer   |            |
| Journal Surgical Research<br>(Associate Editor, 2006)  | 2004       |
| Critical Care Medicine   | 2004       |
| Intensive Care Medicine  | 2004       |
| Journal of Trauma<br>(Editorial Board, 2007)   | 2004       |
| Injury Prevention  | 2004       |
| Journal of the American<br>Medical Association   | 2005       |
| Surgical Infections<br>(Editorial Board 2011)  | 2005       |
| Archives of Surgery  | 2006       |
| Journal of the American<br>College of Surgeons<br>(Editorial Board 2018, Deputy Editor 2021)   | 2006       |
| Resuscitation  | 2006       |
| Journal of Clinical Anesthesia   | 2006       |
| Pediatrics   | 2007       |
| Critical Care Forum  | 2008       |
| Shock Journal (Editorial Board)  | 2008       |
| Journal of Orthopedic Trauma   | 2009       |
| Journal of Clinical Immunology   | 2011       |
| Journal of Pediatric Surgery   | 2011       |
| Critical Care Review   | 2011       |
| Prehospital Emergency Care<br>(Editorial Board)  | 2014       |
| PLOS One   | 2014       |
| British medical Journal  | 2015       |
| Trauma Surgery Acute Care Open<br>(Editorial Board)  | 2016       |
| JAMA Pediatrics  | 2017       |
| Annals of Surgery (Editorial Board)  | 2019       |
| Examination Consultant<br>Clinical management Section<br>In-training/Surgical basic Science Examination<br>American Board of Surgery | 2005- 2009 |

|   |                              |
|---|------------------------------|
| Region Chief, Region X<br>ACS Committee on Trauma   | 2006-2012                    |
| Member, Data Safety Monitoring Board<br>RCT OF FISH OIL FOR ALI   | 2006                         |
| Participant CDC TIIDE grant<br>National Review of Mass Casualty<br>Triage Systems   | 2007                         |
| Editorial Boards  |                              |
| J Trauma  | 2007                         |
| Shock Journal   | 2008                         |
| Surgical Infections   | 2011                         |
| Prehospital Emergency Care  | 2014                         |
| Trauma Surg Acute Care Open   | 2016                         |
| Annals of Surgery   | 2019                         |
| Journal of the American College of Surgeons   | 2019                         |
| Organizing Committee<br>US Critical Illness and Injury Trials Group<br>Funded: NIH U13  | 2007-2010                    |
| Associate Examiner: Oral Board Exam<br>American Board of Surgery  | 2008                         |
| CDC National Expert Panel on Field Triage   | 2011                         |
| CDC/NHTSA Expert Panel<br>National Guidelines for Helicopter EMS<br>use and availability  | 2012                         |
| Member<br>International Medical Surgical Response Team<br>(Name changed to Trauma Critical Care Team in 2016)<br>(IMSURT- West, TCCT), NDMS<br>Acting Chief Medical Officer | 2003-present<br>2011-present |
| Strike Team Leader<br>Mobile Acute Care Teams<br>NDMS   | 2014-present                 |
| Member (AAST representative)<br>Trauma, Burns, Critical Care Component Board<br>American Board of Surgery   | 2012-2018                    |

|   |              |
|---|--------------|
| ACS COT representative<br>NASEMSO Model Guidelines<br>for EMS Committee   | 2013-2014    |
| ACS COT representative<br>Stakeholder group for development of<br>Evidence-based guidelines for EMS<br>NHTSA/NAEMSP | 2013-2017    |
| Chair<br>Committee for Development of Prehospital<br>Evidence-Based Guideline<br>for Hemorrhage Control, ACS-COT    | 2013-2014    |
| Reviewer: Special Emphasis Panel<br>NIGMS Clinical trial review: sepsis   | 2015         |
| Reviewer: Special Emphasis Panel<br>NICHD Loan repayment program  | 2015         |
| Chair & Reviewer: Special Emphasis Panel<br>NIGMS: Trauma Program Project grant                                     | 2015         |
| Trauma Center Verification Site reviewer<br>ACS Committee on Trauma   | 2015-present |
| Technical Expert Consultant<br>AHRQ EPC program<br>Field trauma triage guidelines: GCS score                        | 2016         |
| National Trauma Research Repository<br>Steering Committee, Vice Chair<br>National trauma Institute                  | 2015-present |
| Reviewer: Special Emphasis Panel<br>NICHD Loan Repayment Program  | 2016         |
| Chair & Reviewer: Special Emphasis Panel<br>NIGMS: Trauma Program Project grant                                     | 2016         |
| Up to Date Trauma Section Editor  | 2015-present |
| Reviewer: Special Emphasis Panel  |              |

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|                                     | NICHD Loan Repayment Program  | 2017                  |
|                                     | Board Member<br>National Trauma Institute   | 2017-2020             |
|                                     | Reviewer: Special Emphasis Panel<br>NIGMS: Clinical trial septic shock                                    | 2017                  |
|                                     | Chair<br>American College of Surgeons<br>Committee on Trauma  | 2018-2022             |
|                                     | Participant<br>Humanitarian Surgery in Conflict Summit<br>Stanford University, CA                         | 2018                  |
|                                     | Executive Committee<br>Coalition for National Trauma Research<br>Chair of the Board                       | 2018-present<br>2020- |
|                                     | Grant Reviewer<br>Firearm Injury Prevention RFP<br>Centers for Disease Control                            | 2020                  |
|                                     | Member Core Advisory Committee<br>Designing a National Special Pathogens System<br>for the US<br>HHS/ASPR | 2021                  |
|                                     | Co-Chair Expert Panel<br>Revision of CDC Field Triage Guidelines<br>NHTSA/ACS Committee on Trauma         | 2021                  |
|                                     | Faculty<br>Emergency General Surgery Course<br>American Association for the Surgery of Trauma             | 2021                  |
| <b>INTERNATIONAL<br/>ACTIVITIES</b> | Grant Reviewer:<br>Burrough's Wellcome Fund<br>United Kingdom   | 2004                  |
|                                     | Data Safety Monitoring Board Member<br>Prehospital TXA study<br>Australia                                 | 2013-present          |
|                                     | Improving the Humanitarian Response   |                       |



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|--|---|------------------------|
|  | to Conflict<br>Stanford Summit  | 2018                   |
|  | Data Safety Monitoring Board<br>Erythropoietin in Trauma Clinical trial                                       | 2020                   |
|  | Founding Member<br>Women in Trauma Surgery (WITS)   | 2020                   |
| <b>STATE &amp; REGIONAL<br/>ACTIVITIES</b> | Advanced Trauma Life Support<br>Course Director   | 2001-present           |
|  | Instructor Course Director  | 2003-present           |
|  | Vice Chair<br>ACS Washington State<br>Committee on Trauma   | 2002-2003              |
|  | Chair<br>ACS Washington State<br>Committee on Trauma  | 2003-2006              |
|  | Trauma Center Designation Site Reviewer<br>Department of Health<br>State of Washington                        | 2002-present           |
|  | Member<br>Prehospital Technical Advisory Committee<br>Department of Health, Washington State                  | 2003-present           |
|  | Chair, Trauma Medical Directors<br>Technical Advisory Committee<br>Department of Health, Washington State     | 2003-2010              |
|  | Chair<br>Emergency Medical Services/Trauma Care<br>Governor's Steering Committee<br>Washington State (member) | 2010-2015<br>2003-2016 |
|  | Program Chair<br>Washington State Chapter ACS meeting<br>Sunriver, OR   | 2006                   |
|  | Rural Trauma Team Development<br>Course Director<br>American College of Surgeons                              | 2007-present           |

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| Grant Reviewer<br>Medic One Foundation   | 2007- present |
| President<br>Washington State Chapter,<br>American College of Surgeons   | 2010-2011     |
| Disaster Management &<br>Emergency Preparedness Course<br>American College of Surgeons<br>Course Director & Instructor | 2013-present  |
| Chair<br>COST Technical Advisory Committee<br>Department of Health, Washington State                                   | 2010-2016     |
| Clinical Expert, ECMO<br>WA Health Technology Assessment Program<br>WA State Health Care Authority                     | 2015-2016     |
| Member<br>WA State Disaster Medical Advisory Com   | 2016-present  |
| Director<br>Stop the Bleed Washington Program  | 2016-present  |
| Consultant<br>Western Washington COVID Coordinating center   | 2020          |

**HOSPITAL ACTIVITIES****Harborview Medical Center**

|   |              |
|---|--------------|
| Medical Director<br>Emergency Services            | 2008-2012    |
| Associate Director<br>Emergency Surgical Services | 2000-2008    |
| Clinical Nutrition Committee                      | 2001-2008    |
| Chair, Enteral Feeding<br>Guideline Subcommittee  | 2001-2002    |
| Trauma Council                                    | 2000-present |
| Interim Chair                                     | 2003         |
| Chair   | 2012-present |

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|---|--------------|
| Emergency Department<br>Bond Planning Committee                                     | 2003-2007    |
| Medical Executive Board<br>Elected member at large                                  | 2005-2008    |
| Chair, Search Committee<br>for Chief of Oral Maxillofacial Surgery                  | 2006-2007    |
| President of the Medical Staff<br>Harborview Medical Center                         | 2007-2008    |
| Associate Medical Director<br>Harborview Medical Center                             | 2008-2012    |
| Credentialing Committee   | 2008-present |
| Member, Transfusion Committee   | 2012-present |
| Co-Chair, Department of Surgery<br>Peer Support Program                             | 2014-present |
| Medical Director<br>HMC ECLS Program  | 2015-present |
| Chair, Search Committee<br>for Chief of Oral Maxillofacial Surgery                  | 2015         |
| Member<br>OR TeamSteps Oversight Committee  | 2016         |
| Associate Medical Director Surgical Services<br>Harborview Medical Center (Interim) | 2021         |
| Chair, Search Committee<br>Anesthesiology & Pain Medicine<br>Chief of Service       | 2021         |

**RESEARCH  
TRAINING:**

|  |           |
|--|-----------|
| Wilmer Eye Institute<br>Johns Hopkins Hospital<br>Fight for Sight Student Fellowship<br>Mentor: Judith Whittum-Hudson, PhD | 1985-1987 |
| National Institutes of Health<br>Neuroimmunology Branch  | 1989      |

**RESEARCH  
FUNDING:**

University of Washington 1995-1997  
NIH Trauma Research Fellowship  
Mentor: Ronald V. Maier, MD

“Pre-Hospital Management of the Difficult Airway” (PI: Bulger)  
Medic One Foundation, Seattle, WA  
10/1/99-10/1/02, \$10,000

“The Advantages of Oxandrolone Use in the Chronic Surgical ICU Patient”  
Pilot & Feasibility Award- Clinical Nutrition Research Unit, University of  
Washington, Seattle, WA (PI: Bulger)  
12/1/00-12/1/02, \$50,000 for 2 years

“The Cytokine Profile of Burn Patients Undergoing Plasmapheresis”  
Washington State Council of Firefighters, Seattle, WA (PI: Bulger)  
9/1/00-9/1/02, \$25,978

“ The Role of Platelet Activating Factor in ARDS” (PI: Bulger)  
American Association for the Surgery of Trauma/  
Wyeth-Ayerst Research Scholarship  
Awarded 7/1/01-7/1/02, \$35,000

“Immunomodulation of Macrophages Following Trauma” (PI:Maier)  
NIH RO1 GM45873 4/1/99-3/31/03  
Co-investigator 10% NIH, NIGMS \$266,704

“Postdoctoral Training” (PI:Maier)  
NIH, NIGMS T32 GM07037 7/1/00-6/30/05  
Mentor \$192,330 per annum

“Modulation of Alveolar Macrophage Activation in ARDS”(PI: Bulger)  
John H. Davis Scholarship Award, American Association for the Surgery of  
Trauma, Awarded 7/1/02-7/1/03, \$35,000

“The Impact of Prehospital Intervention on Outcome following Traumatic  
Brain Injury” (PI: Bulger)  
Brain Trauma Foundation, Center of Excellence for Prehospital Research  
11/1/02-11/1/08, \$25,000 per annum

“National Variability in Pre-hospital Care for Trauma Patients: Impact on  
Outcome” (PI: Bulger)  
Medic One Foundation, 11/7/02-11/6/03, \$35,000

“The Effect of Hypertonic Resuscitation for Blunt Trauma” (PI: Bulger)  
NIH, R01 HL073233 4/1/03-3/31/07 \$1,054,661

“ Videoendoscopic drainage of infected pancreatic collections” (PI Horvath)  
NIDDKD Site coordinator, Harborview Medical Center

“Biofunctional Polymers for Intracellular Drug Delivery” (PI: Stayton)  
NIH, R01 EB 002991-01 9/19/2003 - 07/31/2007  
Co-investigator 10% \$259,005

“The Impact of Hypertonic Resuscitation on the Inflammatory Response”  
(PI: Bulger)  
Medic One Foundation, 11/1/03-8/31/05 \$50,000

“HL-04-001 Clinical Research Consortium to Improve Resuscitation  
Outcomes” (PI: Kudenchek)  
NIH, NHLBI, 9/1/04-6/30/16 Co-Principal Investigator 20%

HL-04-001 Data Coordinating Center, Resuscitation Consortium (PI: van  
Belle)  
NIH, NHLBI, 9/1/04-6/30/16 Co-Principal Investigator 10%

“Crash Injury Research & Engineering Network (CIREN)”  
NHTSA, 4/1/06-5/31/16 Principal Investigator 15%

“ Hypertonic Modulation of Inflammation after Injury”  
(PI: Bulger) 1R01GM76101-01A1 6/11/2007-5/31/2012  
Principal Investigator 10% \$395,929/annum

Prehospital Management of the Pediatric Airway  
(co-PI Bulger/Warner)  
Medic One Foundation 11/1/07-11/1/09 \$20,000

Prospective Observational Multi-center Massive Transfusion Study  
Department of Defense  
(Site PI: Bulger 10%) 3/15-09-9/15/10 \$443,307

Prospective Validation and Cost Analysis of the National Guidelines for  
Field Triage, Centers for Disease Control (PI: Newgard)  
Co-investigator 9/1/10-8/31/12 \$299,732

Muscle Oxygenation for Noninvasive Stratification of Shock Severity  
Coulter Foundation UW Bioengineering Grant &  
Life Science Discovery Fund (PI: Schenkman) \$150,000  
Co-investigator

Multicenter Phase 2a trial of a Novel drug for Patients with Necrotizing Soft  
Tissue Infections, AtoxBio Ltd (PI: Bulger) 2012-2013

Pragmatic, Randomized Optimal Platelet and Plasma Ratios (PROPPR)  
 NIH/DOD Site PI  
 Pacific Northwest Clinical Center for the NHLBI PETAL Network  
 UO1 , NHLBI \$2,281,259  
 Co-PI

Prehospital Tranexamic Acid Use for Traumatic Brain injury  
 W81XWH-13-2-0090 MODP01 (May) 07/01/14-17  
 Co-investigator DOD \$2,583,506 (overall)

Prehospital Resuscitation on Helicopter Services  
 HL-077863-11, NIH NHLBI (May)  
 Co-Investigator 01/01/15-12/31/15 \$190,066/yr

The Value of Emergency Care for Injured Older Adults  
 NIH AHRQ (Newgard) (Bulger, Site PI) 01/01/15-12/31/18  
 (Subcontract from Oregon Health Sciences) \$9,539 (Yr 1)

Multicenter Phase 3 trial of a novel drug for patients with  
 Necrotizing Soft Tissue Infections, AtoxBio Ltd (PI: Bulger) 2015-  
 present (site PI and national PI)

Therapeutic Limb Cooling to Prevent Amputation in prolonged  
 Damage Control Resuscitation, Department of Defense DM160405  
 PI: Bulger, EM 7/1/17-7/1/20 \$1,500,000

Development of a National Trauma Research Action Plan  
 Department of Defense  
 Co PIs: Bulger EM, Price M 9/1/18-9/1/23 \$3,000,000

A Deployment Focused Pragmatic Trial of Optimal Stepped Care  
 Intervention Targeting PTSD and Comorbidity for Acutely  
 Hospitalized Injury Survivors in US Trauma Care Systems  
 Co PI: Bulger EM and Zatzick DF 9/1/22-6/30/27 \$790,177

## PUBLICATIONS:

### *Peer Reviewed*

1. **Metzger EE\*** and Whittum-Hudson JA. The dichotomy between Herpes Simplex Virus Type 1 induced ocular pathology and systemic immunity. Invest Ophthalmol Vis Sci. 28:1533, 1987.

2. Hoyt DB, **Bulger EM**, Knudson MM et al. Death in the Operating Room: An analysis of a multi-center experience. *J Trauma* 37: 426-432, 1994.
3. Jurkovich GJ, Hoyt DB, Moore FA, Ney AL, Morris JA, Scalea TM, Patcher HL, **Bulger E**, Simmons RK, Moore EE, McGill JW, Miles WS. Portal Triad Injuries. *J Trauma* 39: 426-434, 1995.
4. **Bulger EM**, Garcia I, Maier RV. The differential effects of the membrane antioxidant, vitamin E on macrophage activation. *Surgical Forum*. 47:92-95, 1996.
5. **Bulger EM**, Smith DG, Maier RV, Jurkovich GJ. Fat embolism syndrome: A ten year review. *Archives of Surgery* 132:435-439, 1997.
6. **Bulger E**, Garcia I, Maier R. The role of Vitamin E as a modulator of macrophage activation. *in 4th International Congress on the Immune Consequences of Trauma, Shock, and Sepsis: Mechanisms and Therapeutic Approaches*. ed E. Faist, Monduzzi Editore, Bologna, Italy, 1997. p.349-353
2. 5. **Bulger EM**, Helton WS, Clinton CM, Roque RP, Garcia I, Maier RV. Enteral vitamin E supplementation inhibits the cytokine response to endotoxin. *Archives of Surgery* 132:1337-1341, 1997.
7. **Bulger EM**, Garcia I, Maier RV. Dithiocarbamates enhance tumor necrosis factor- $\alpha$  production by rabbit alveolar macrophages, despite inhibition of NF- $\kappa$ B. *Shock* 9 (6): 397-405, 1998.
8. **Bulger EM**, Arneson MA, Mock CM, Jurkovich GJ. Rib Fractures in the Elderly, *J Trauma* 48(6): 1040-1046, 2000.
9. **Bulger EM**, Nathens AB, Rivara FP, Grossman DC, Moore M, Jurkovich GJ. Variations in the Care of the Head Injured Patient, *Surgical Forum* 51:506-508, 2000.
10. Carter Y, Meissner M, **Bulger EM**, Demirer S, Brundage S, Jurkovich GJ, Borsa J, Mulligan M, Karmy-Jones R, Anatomical Considerations in the Surgical Management of Blunt Aortic Injury, *J Vasc Surg* 34: 628-33, 2001.
11. **Bulger EM**, Arbabi S, Garcia I, Maier RV: The macrophage response to endotoxin requires platelet activating factor. *Shock*, 17 (3): 173-179, 2002.
12. **Bulger EM**, Garcia I, Maier RV: Intracellular antioxidant activity is necessary to modulate the macrophage response to endotoxin. *Shock* 18 (1):58-63, 2002.
13. Guerrero A, Gibson K, Kralovich K, Pipinos I, Agnostopolous P, Carter Y, **Bulger E**, Meissner M, Karmey-Jones R. Limb loss following lower extremity trauma arterial trauma: What can be done proactively? *Injury*, 33:765-769, 2002.

14. **Bulger EM** & Foy H. Myodesis: A novel approach to the repair of complex traumatic hernias. *J Trauma* 52: 756-758, 2002.
15. **Bulger EM**, Nathens AB, Rivara FP, Moore M, MacKenzie EJ, Jurkovich GJ. Management of Severe Head Injury: Institutional Variations in Care and Effect on Outcome. *Critical Care Medicine* 30 (8): 1870-1876, 2002.
16. **Bulger EM**, McMahon K, Jurkovich GJ. The morbidity of penetrating colon injury. *Injury, Int J Care Injured* 34:41-46, 2003.
17. **Bulger EM**, Copass MK, Maier RV, Larsen J, Knowles J, Jurkovich GJ. An analysis of advanced prehospital airway management. *J Emerg Med* 23:183- , 2002.
18. Cuschieri J, Gourlay D, **Bulger EM**, Garcia I, Jelacic S, Maier RV. Platelet Activating Factor (PAF) priming of inflammatory cell activity requires cellular adherence. *Surgery* 132:157-66, 2002.
19. **Bulger EM**, Gourlay D, Cuschieri J, Jelacic S, Staudenmeyer K, Garcia I, Maier RV. Platelet Activating Factor Acetylhydrolase inhibits alveolar macrophage activation, *in vivo*. *Shock* 20:17-22, 2003.
20. **Bulger EM**, Garcia I, Maier RV. Induction of heme-oxygenase 1 inhibits the proinflammatory response of endothelial cells. *Surgery* 134:146-52, 2003.
21. Kao L, **Bulger EM**, Parks D, Byrd G, Jurkovich GJ. Predictors of morbidity following traumatic pancreatic injury. *J Trauma* 55(5): 898-905, 2003.
3. 21. **Bulger EM**, Edwards T, Klotz P, Jurkovich GJ. Epidural analgesia improves outcome following multiple rib fractures. *Surgery* 136(2): 426-30, 2004.
22. Cuschieri J, Gourlay D, **Bulger E**, Garcia I, Jelacic S, and Maier R. Calcium/Calmodulin-dependent kinase II is required for platelet activating factor (PAF) priming of inflammatory cells. *Shock* 23 (2): 99-106, 2005.
23. **Bulger EM**, Jurkovich GJ, Farver CL, Klotz P, Maier RV. Oxandrolone dose not improve outcome for chronically ventilated surgical patients. *Annals of Surgery* 240(3):472-8, 2004.
24. Anaya D, McMahon K, Nathens AB, Sullivan S, Foy H, **Bulger EM**. Predictors of Mortality and Limb Loss in Necrotizing Soft Tissue Infections. *Archives of Surgery* 140:151-157, 2005.
25. **Bulger EM**, Copass MK, Sabath D, Maier RV, Jurkovich GJ. The use of Neuromuscular Blocking Agents to Facilitate Prehospital Intubation does not Impair Outcome following Traumatic Brain Injury, *J. Trauma*, 58 (4):718-724, 2005.



26. Pickens J, Copass MK, **Bulger EM**. Trauma Patients Receiving CPR: Predictors of Survival. *J Trauma*, 58(5):951-958, 2005.
4. 27. Staudenmeyer K, Maier RV, Jelacic S, **Bulger EM**. Hypertonic saline modulates innate immunity in a model of systemic inflammation. *Shock* 23 (5): 459-463, 2005.
27. Cuschieri J, **Bulger EM**, Garcia I, Maier RV. Oxidative Induced Calcium Mobilization is Dependant on Annexin IV release from Lipid Rafts. *Surgery*, 138: 158-64, 2005.
28. Gourlay D, Hoffer R, Routt, M, **Bulger EM**. Pelvic angiography for recurrent pelvic arterial hemorrhage. *J Trauma* 59:1168-1173, 2005.
29. Coates BM, Vavilala MS, Mack C, Muangmun S, Sharar S, **Bulger EM**, Lam AM. The Influence of Definition and Timing of Hypotension on Outcome Following Severe Pediatric Traumatic Brain Injury. *Crit Care Med* 33:2645-50, 2005.
30. Muangman N, Stern EJ, **Bulger EM**, Jurkovich GJ, Mann FA. Chest Radiographic Evolution in Fat Embolism Syndrome. *J Med Assoc Thai* 88: 1854-1860, 2005.
31. Kozar R, Moore FA, Cothren CC, Moore EE, Sena M, **Bulger EM**, Miller CC, Eastridge B, Acheson E, Brundage SI, Tataria M, McCarthy M, Holcomb JB, Risk factors for hepatic morbidity following non-operative management: a multicenter study. *Arch Surg* 141: 451-8, 2006.
32. **Bulger EM**, Nathens AB, Rivara FP, MacKensie E, Copass MK, Sabbath D, Jurkovich GJ. National variability in out-of-hospital treatment after traumatic injury. *Ann Emerg Med* 49:293-301, 2007.
33. Cuschieri J, **Bulger E**, Biligrin J, Garcia I, Maier RV. Acid Sphingomyelinase is required for lipid raft TLR4 complex formation. *Surgical Infections* 8, 91-106, 2007.
34. **Bulger EM**, Jurkovich GJ, Nathens AB, Copass MK, Hanson H, Cooper C, Liu PY, Warner K, Maier RV. Hypertonic resuscitation of hypovolemic shock after blunt trauma: a randomized controlled trial. *Arch Surg* 143:139-148, 2008
35. **Bulger EM**, Cuschieri J, Warner K, Maier RV. Hypertonic Resuscitation modulates the inflammatory response in patients with traumatic hemorrhagic shock. *Ann Surg* 245 (4), 635-641, 2007.
36. Warner KJ, Cuschieri JC, Copass MK, Jurkovich GJ, **Bulger EM**. The Impact of Prehospital Ventilation on Outcome Following Severe Traumatic Brain Injury *J Trauma* 62 (6) 1330-6, 2007.
37. Sullivan SR, Engrav L, Anaya DA, **Bulger EM**, Foy HM. Bilateral anterior abdominal bipedicle flap with permanent prosthesis for the massive abdominal skin grafted hernia. *Am J Surg* 193(5), 651-655, 2007.

38. Cuschieri J, **Bulger E**, Biligrin J, Garcia I, Maier RV. Vitamin E inhibits Endotoxin Mediated Transport of Phosphatases to Lipid Rafts. Shock 27: 19-24, 2007.
39. Kuan JK, Kaufman R, Wright JL, Mock C, Nathens AB, Wessells H, **Bulger EM**. Renal Injury Mechanisms in Motor Vehicle Collisions: analysis of the Crash Injury Research and Engineering (CIREN) dataset. J Urology 178 (3pt1), 935-40, 2007.
40. Schaeffer V, Cuschieri J, Garcia I, Knoll M, Billgren J, Jelacic S, **Bulger E**, Maier R. The priming effect of C5a on monocytes is predominantly mediated by the p38 MAPK pathway. Shock 27 (6): 623-30, 2007 .
41. Cuschieri J, **Bulger EM**, Grinsell R, Garcia I, Maier RV, Insulin Regulates Macrophage Activation through Activin A1. Shock 29:285-90, 2008.
42. Eastridge BJ, Salinas J, McManus JG, **Bulger EM**, Wade CE, Holcomb JB. Hypotension begins at 110mmHg: redefining hypotension with data. J Trauma 63 (2): 291-7, 2007.
43. Crandall M, Luchette F, Esposito TJ, West M, Shapiro M, **Bulger E**. Attempted suicide and the elderly trauma patient: risk factors and outcome. J Trauma 62 (4): 1021-7, 2007.
44. Brasel K, **Bulger E**, Cook A, Morrison L, Newgard C, Tisherman S, Kerby J, Coimbra R, Hata S, Hoyt D. Hypertonic Resuscitation: Design and Implementation of a Prehospital Intervention Trial J Amer Coll Surg 206:220-232, 2008.
45. **Bulger EM**, Kaufman R, Mock CM. Childhood Crash Injury Patterns Associated with Restraint Misuse: Implications for Field Triage. Prehosp Disaster Med 23, 9-15, 2008.
46. **Bulger EM**, Edwards WT, de Pinto M, Klotz P, Jurkovich GJ. Indications and Contraindications for Thoracic Epidural analgesia in Multiply Injured Patients. Acute Pain 10:15-22, 2008.
47. Francis DO, Warren S, Warner K, Copass MK, **Bulger EM**. Sodium azide-associated laryngospasm after air bag deployment. J Emerg Med 39 (3) e113-5, 2008.
48. Warner KJ, Sharar SR, Copass MK, **Bulger EM**. Prehospital Management of the Difficult Airway: A prospective cohort study. J Emerg Med 36: 257-65, 2009.
49. Warner KJ, Cuschieri J, Copass MK, Jurkovich GJ, **Bulger EM**. Emergency Department Ventilation effects Outcome after Severe Traumatic Brain Injury. J Trauma 64:341-7, 2008.
50. Dissanaik S, Kaufman R, Mack CD, Mock C, **Bulger EM**. The Effect of Reclined Seats on Mortality in Motor Vehicle Collisions. J Trauma 64:614-9, 2008.

51. Warner KJ, Copass MK, **Bulger EM**. Paramedic use of Needle Thoracostomy in the Prehospital Environment. *Prehospital Emerg Care* 12:162-8, 2008.
52. Warner KJ, Cuschieri J, O'Keefe GO, Jurkovich GJ, **Bulger EM**. Single dose Etomidate for Rapid Sequence Intubation Impacts Outcome after Severe Injury. *J Trauma* 67:45-50, 2009.
53. **Bulger EM**, Schmidt TA, Cook A, Brasel KJ, Griffiths DE, Kudenchuk P, Davis D, Bardarson B, Idris A, Auferheide T. The Random Dialing Survey as a Tool for Community Consultation for Research involving the Emergency Medicine Exception from Informed Consent. *Ann Emerg Med* 53: 341-50, 2009.
54. Limaye AP, Kirby KA, Rubenfeld GD, Leisenring SM, **Bulger EM**, Neff M, Gibran NS, Huang M, Santo TK, Corey L, Boeckh M. Cytomegalovirus (CMV) in Critically Ill Immunocompetent Patients. *JAMA* 300 (4):413-22, 2008.
55. Pham TN, Heinberg E, Cuschieri J, **Bulger EM**, O'Keefe GE, Gross JA, Jurkovich GJ. The evolution of the diagnostic work-up for stab wounds to the back and flank. *Injury* 40: 48-53, 2009.
56. Warner KJ, Cuschieri J, Garland B, Carlbom D, Baker D, Copass MK, Jurkovich GJ, **Bulger EM**. The Utility of Early End-Tidal Capnography in Monitoring Ventilation Status following Severe Injury *J Trauma* 66 (1): 26-31, 2009.
57. Sugarman J, Sitlani C, Andrusiek D, Aufderheide T, **Bulger EM**, et al. Is Enrollment of racial and ethnic minorities in research in the emergency setting equitable?. *Resuscitation* 80:644-649, 2009.
58. Maheshwari R, Mack CD, Kaufman RP, Francis DO, **Bulger EM**, Nork SE, Henley MB. Severity of Injury and Outcomes among Obese Trauma Patients with Fractures of the Femur and Tibia: A Crash Injury Research and Engineering Study. *J Orthop Trauma* 23: 634-9, 2009.
59. Warner K, Carlbom D, Cooke C, **Bulger EM**, Copass MK, Sharar S. Paramedic Training for Proficient Prehospital Intubation, *Prehospital Emergency Care*, 14 (1):103-108, 2009.
60. Cuschieri J, Sakr S, **Bulger E**, Schaeffer V, Garcia I, Knoll M, Arababi S, Maier R. Oxidant Alterations in CD16 Expression are Cytoskeletal Induced, *Shock* 32:572-7, 2009.
61. Newgard C, Rudser K, Hedges J, Kerby J, Steill IG, Davis D, Morrison LJ, **Bulger EM**, Terndrup T, Minei JP, Bardarson B, Emerson S. A critical assessment of the out-of-hospital trauma triage guidelines for physiologic abnormality. *J Trauma* 68(2): 452-62, 2010.

62. Newgard CD, Schmicker R, Hedges JR, Trickett JP, Davis DP, **Bulger EM**, Aufderheide TP, Minei JP, Hata JS, Gubler KD, Brown TB, Yelle JD, Bardarson B, Nichol G. Emergency medical services time intervals and survival in trauma: assessment of the “Golden Hour” in a North American prospective cohort. *Ann Emerg Med* 55(3): 235-246 e4, 2009.
63. Mandell S, Kaufman R, Mack C, **Bulger EM**. Describing a Problem: Rear Seatback Failure and Unsecured Cargo. *Prehospital and Disaster Medicine* 25:152-7, 2009.
64. Anaya DA, **Bulger EM**, Kwon YS, Kao LS, Nathens AB. Predicting mortality in necrotizing soft tissue infections: a clinical score *Surgical Infections* 10:517-22, 2009.
65. Burns SP, Kaufman RP, Mack CD, **Bulger EM**. Cost of Spinal Cord Injuries Caused by Rollover Automobile Crashes, *Injury Prevention* 16:74-78, 2010.
66. Newgard CD, Koprowicz K, Wang H, Monnig A, Kerby JD, Sears GK, Davis DP, **Bulger EM**, Stephens S, Daya MR and the ROC Investigators. Variation in the Type, Rate, and Selection of Patients for Out-of-Hospital Airway Procedures among Injured Children and Adults. *Acad Emerg Med* 16:1269-1276, 2009.
67. Newgard CD, Rudser K, Atkins DL, Berg R, Osmond MH, **Bulger EM**, Davis DP, Schreiber MS, Rea TD Emerson S. The availability and use of out-of-hospital physiologic information to identify high-risk injured children in a multisite, population-based cohort. *Prehosp Emerg Care* 13(4): 420-31, 2009.
68. Cobb JP, Cairns CB, **Bulger E**, Wong HR, Parsons PE, Angus DC, Gentile NT, Hoyt DB, Schwinn DA, Wiener-Kronish JP, Upperman JS. The United States Critical Illness and Injury Trials Group: An Introduction. *J Trauma* 67 (2) Suppl 2009.
69. Evans HL, Zonies DH, Warner K, **Bulger EM**, Sharar SR, Maier RV, Cuschieri J. Timing of Intubation and Ventilator Associated Pneumonia in Trauma Patients. *Archives of Surgery*, 145: 1041-6, 2010.
70. Mandell S, Kaufman R, Mack CD, **Bulger EM**. Mortality and Injury Patterns Associated with Roof Crush in Rollover Crashes, *Accident, Analysis and Prevention* 42:1326-31, 2010.
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69. Miranda D, **Bulger EM**. Novel Immune Therapies in the Management of Streptococcal Sepsis and Necrotizing Soft Tissue Infections. Surg Infect 19:745-749, 2018.
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81. Pieracci FM, Burlew CC, Spain D, Livingston DH, **Bulger EM**, Davis KA, Michetti C. [Tube thoracostomy during the COVID-19 pandemic: guidance and recommendations from the AAST Acute Care Surgery and Critical Care Committees](#). Trauma Surg Acute Care Open. 2020;5(1):e000498. doi: 10.1136/tsaco-2020-000498
82. Michetti CP, Burlew CC, **Bulger EM**, Davis KA, Spain DA. [Performing tracheostomy during the Covid-19 pandemic: guidance and recommendations from the Critical Care and Acute Care Surgery Committees of the American Association for the Surgery of Trauma](#). Trauma Surg Acute Care Open. 2020;5(1):e000482. doi: 10.1136/tsaco-2020-000482
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84. **Bulger EM**. Harnessing your passion and connecting to purpose. 2020 Oriens Lecture EAST, J Trauma Acute Care Surg, 89 (1):13-17, 2020.
85. Newgard CM, **Bulger EM**. Inclusion of All Admitted Patients for Trauma in Trauma Registries: Reply to Letter to the Editor. JAMA Surgery 155;265-266, 2020.



86. **Bulger EM.** A Growing Body of Evidence Supports the American College of Surgeons Stop the Bleed Program. J Amer Coll Surg 233: 239-240, 2021.
87. **Bulger EM.** Optimizing Venous Thromboembolism Prophylaxis after Injury: An Evidence-based Approach. Ann Surg, In Press 2021.
88. Zhang G, Leung GK, Lo CM, Lo RK, Wong J, Maier RV, **Bulger EM**, Fan JK, Fu X. Regional trauma system development in Shenzhen, China: an 8-year journey. Military Medical Research, <https://doi.org/10.1186/s40779-021-00352-1> , 2021.
89. **Bulger EM.** Women in Trauma Surgery: Advancing our Profession Through International Collaboration. Kirurgen 1-2022, page 38-39.
90. Kerby J, **Bulger EM.** The COT at 100: A Legacy of Improved Care for the Injured Patient. American College of Surgeons Bulletin. March 4, 2022 <https://bulletin.facs.org/2022/03/the-cot-at-100-a-legacy-of-improved-care-for-the-injured-patient/>
91. Bulger, EM, Clemency J, Stewart RM (Editors) Looking to the Future Through the Lens of Legacy: 100 years of the American College of Surgeons Committee on Trauma, 2022.

#### **PRESENTATIONS/ INVITED LECTURES:**

1. Death in the Operating Room: A trauma center review. Seattle Surgical Society, 1994
2. Death in the Operating Room: A trauma center review. Washington State Chapter, American College of Surgeons, Second Place Henry Harkins Paper Competition, 1994.
3. Ischemic Necrosis of the Lesser Curve: A complication of highly selective vagotomy. Washington State Chapter, American College of Surgeons, 1995
4. Dithiocarbamates enhance alveolar macrophage TNF production in response to endotoxin despite inhibition of NF-kB, Region X Resident Paper Competition- ACS Committee on Trauma, Winner Best Basic Science Paper, 1995.
5. Fat Embolism Syndrome: A Ten Year Review. Seattle Surgical Society - Winner Best Resident Paper, 1996
6. The effect of dithiocarbamates on macrophage activation. Society of University Surgeons, Residents' Section, 1996.
7. The effect of dithiocarbamates on macrophage activation Shock Society - Young Investigator Award Finalist, 1996.
8. Fat Embolism Syndrome: A Ten Year Review American Association for the Surgery of Trauma, 1996

9. The differential effects of the membrane antioxidant, vitamin E on macrophage activation. American College of Surgeons: Surgical Forum, 1996
10. The effect of dithiocarbamates on macrophage activation. Washington State Chapter, American College of Surgeons, 1996
11. Enteral vitamin E supplementation inhibits the cytokine response to endotoxin Runner up Best Basic Science Paper Region X Resident Paper Competition- ACS Committee on Trauma, 1996
12. Enteral vitamin E supplementation inhibits the cytokine response to endotoxin. Society of University Surgeons, Resident's Section, 1997.
13. The role of vitamin E as a modulator of macrophage activation. The 4th International Congress on the Immunological Consequences of Trauma, Shock, and Sepsis, Munich, Germany, 1997
14. Enteral vitamin E supplementation inhibits the cytokine response to endotoxin. Surgical Infection Society, 1997
15. Intracellular antioxidant activity is necessary to modulate the macrophage response Shock Society, 1997
16. Inhibition of p38 MAP Kinase differentially inhibits macrophage production of Il-8 in response to hypertonic saline and LPS. Society for Leukocyte Biology, 1997
17. The evaluation of thoracic aortic injury in the community hospital. Washington State Chapter, American College of Surgeons, 1998.
18. Rib fractures in the elderly. Washington State Chapter, American College of Surgeons, 1998
19. The evaluation of thoracic aortic injury in the community hospital. Pacific Northwest Vascular Society, 1998. 3rd place, Resident paper competition
20. Rib fractures in the elderly trauma patient. Regional Resident Paper Competition- American College of Surgeons Committee on Trauma, 1998
21. What's New in ARDS? Surgical Grand Rounds, Department of Surgery, University of Washington, 1998
22. Myodesis: A novel approach to the repair of complex traumatic hernias. Washington State Chapter, American College of Surgeons, 1999.
23. Rib fractures in the elderly. American Association for the Surgery of Trauma, 1999



24. The Macrophage Response to Endotoxin Requires Platelet Activating Factor. Region X Resident Paper Competition-American College of Surgeons Committee on Trauma, Best Basic Science Paper, 1999
25. The macrophage response to endotoxin requires platelet activating factor. 5<sup>th</sup> World Congress on the Immunological Consequences of Trauma, Shock, and Sepsis, Munich, Germany, 2000
26. The macrophage proinflammatory response to endotoxin requires platelet activating factor. Surgical Infection Society. Providence, RI, 2000
27. Variations in the Care of the Head Injured Patient. American College of Surgeons-Surgical Forum, Chicago, IL, 2000.
28. The morbidity of a Colostomy following Penetrating Colon Injury. Western Trauma Association, Big Sky, MT, 2001.
29. Rib fractures in the elderly trauma patient. WAMI 2001: Current Practices in Adult and Pediatric Trauma Conference, Tukwilla, WA, 2001.
30. Differential modulation of macrophage signaling pathways by phenolic antioxidants. Shock Society, Marco Island, FL, 2001.
31. Colon Injury: The Current Standard. The Annual Harkins Surgical Symposium: What's New in General Surgery 2001, Seattle, WA 2001.
32. The use of Anabolic Agents in Critical Illness. What's New in Nutrition Lecture Series, University of Washington, Seattle, WA 2002.
33. Platelet Activating Factor Acetylhydrolase inhibits alveolar macrophage activation, *in vivo*. Surgical Infection Society, Madrid, Spain 2002.
34. Substance P primes human monocytes via upregulation of p38 kinase and nuclear factor  $\kappa$ B. Shock Society, Big Sky, Montana, 2002.
35. Surgical portacaval shunt is well-tolerated in elderly cirrhotics with variceal bleeding. Pacific Northwest Vascular Society, Seattle, WA, 2002.
36. Anabolic Agents in Critical Illness. Clinical Nutrition Research Unit Retreat, Seattle, WA, 2003.
37. Induction of heme-oxygenase 1 inhibits the proinflammatory response of endothelial cells, Society of University Surgeons, Houston, TX, 2003.

38. National Controversies in Prehospital Trauma Care. West Region EMS Conference, Ocean Shores, WA, 2003.
39. Use of Recombinant Factor VIIa in Coagulopathy. WAMI 2003: Current Practices in Adult and Pediatric Trauma Conference, Tukwilla, WA 2003.
40. National Controversies in Prehospital Trauma Care. Department of Surgery Grand Rounds, University of Washington, Seattle, WA 2003
41. Resuscitation Immunology. Surgical Infection Society Plenary Session, San Antonio, TX 2003.
42. Epidural Analgesia Improves Outcome Following Multiple Rib fractures. Society of University Surgeons, St. Louis, MO 2004
43. Hypertonic Resuscitation for Traumatic brain Injury. 6<sup>th</sup> World Congress on Trauma. Shock, Inflammation, and Sepsis, Munich Germany, 2004.
44. The Role of Platelet Activating Factor in LPS Signaling. . 6<sup>th</sup> World Congress on Trauma. Shock, Inflammation, and Sepsis, Munich Germany, 2004.
45. The Anti-inflammatory Effects of Heme-oxygenase 1. 6<sup>th</sup> World Congress on Trauma. Shock, Inflammation, and Sepsis, Munich Germany, 2004.
46. Oxandrolone does not Improve Outcome for Ventilator Dependent Surgical Patients. American Surgical Association, San Francisco, CA 2004.
47. The Use of Neuromuscular Blocking Agents to Facilitate Prehospital Intubation does not Impair Outcome following Traumatic Brain Injury, American Association for the Surgery of Trauma, Maui Hawaii 2004
48. Predictors of Survival for Trauma Patients Requiring CPR. American Association for the Surgery of Trauma, Maui Hawaii 2004.
49. Choosing the Optimal Resuscitation Fluid, American College of Surgeons, New Orleans, LA 2004
50. EMS Data: Prehospital Research & Quality Assurance, EMS for Children Symposium, Seattle, WA 2005.
51. The Evolution of Resuscitation Science. Department of Surgery Grand Rounds, University of Washington, Seattle, WA 2005
52. Management of Necrotizing Soft Tissue Infections, Surgical Infection Society, Miami, FL 2005.

53. The Use of Neuromuscular Blocking Agents to facilitate Prehospital Intubation: Impact on Outcome. WAMI 2005: Current Practices in Adult and Pediatric Trauma Conference, Seattle, WA 2005
54. Prehospital Airway and Ventilation Issues for Trauma Patients, Resuscitation Rounds, University of Washington, Seattle, WA, 2005.
55. Best Practices in Prolonged Mechanical Ventilation after Injury, American College of Surgeons, San Francisco, CA, 2005
56. Hypertonic Resuscitation following Traumatic Injury. Resuscitation Science Symposium, American Heart Association, Dallas, TX 2005.
57. The Development of Clinical trials of Hypertonic Resuscitation. Resuscitation Science Symposium, American Heart Association, Dallas, TX 2005.
58. Evaluation of Blunt Cervical Injury. Grand Rounds, Kadlec Medical Center, Pasco, WA 2005
59. Evaluation of Cervical Spine Injury and Mild Traumatic Brain Injury, Trauma Conference, Kadlec Medical Center, Pasco, WA, 2005.
60. Indications and contraindications for Epidural Analgesia in Multiply Injured Patients. American Society Regional Anesthesia and Pain Medicine, 2005 (poster)
61. Development of Clinical Trials of Hypertonic Resuscitation 1980-2005. Society of Critical Care Medicine, San Francisco, CA, 2006.
62. Hypertonic Resuscitation modulates the inflammatory response in patients with traumatic hemorrhagic shock . Surgical Infection Society, San Diego, CA 2006
63. Community Acquired MRSA: (Invited moderator) Surgical Infection Society, San Diego, CA 2006.
64. Hypertonic Saline Resuscitation in Trauma. WAMI 2006: Current Practices in Adult and Pediatric Trauma Conference, Seattle, WA 2006.
65. Management of Necrotizing Soft Tissue Infections. Northwestern University Trauma Conference, Chicago, IL, 2006.
66. Hypertonic Resuscitation of Hypovolemic Shock after Blunt Trauma: A Randomized Controlled Trial. Shock Society, Broomfield, CO 2006.
67. Management of Necrotizing Soft Tissue Infections. Auburn Regional Medical Center Grand Rounds, Auburn, WA 2006.

68. Geriatric Trauma: Challenges and Opportunities. Sacred Heart Medical Center Grand Rounds, Spokane, WA 2006.
69. Childhood Crash Injury Patterns Associated with Restraint Misuse. CIREN network conference. Milwaukee, WI 2006.
70. Targeted Prehospital Ventilation is Associated with Improved Outcome after Severe TBI. American Association for the Surgery of Trauma, New Orleans, LA 2006.
71. Hypertonic Resuscitation Modulates the Inflammatory Response in Patients with Traumatic Hemorrhagic Shock, Surgical Biology Club, American College of Surgeons, Chicago, IL 2006.
72. Prehospital Intubation Saves Lives (Debate vs. D Hoyt) American College of Surgeons, Chicago, IL 2006.
73. Prehospital End Tidal CO2 Monitoring of Ventilation: Not Ready for Prime Time (Debate vs. D Davis) Resuscitation Science Symposium, American Heart Association, Chicago, IL 2006.
74. The ABCs of Traumatic Brain Injury. Seattle Medic One Tuesday Series, Seattle, WA 2007
75. The ABCs of Thoracic Trauma. West Region EMS Conference, Ocean Shores, WA 2007
76. Important Aspects of Managing the Trauma Patient: Trauma Resuscitation, Society of Interventional Radiology, Seattle, WA 2007.
77. Differential Leukocyte Gene Expression after Hypertonic Resuscitation. Shock Society, Baltimore, MD 2007.
78. Prehospital Management of Traumatic Brain Injury. Kitsap County EMS Continuing Education Meeting, Silverdale, WA 2007.
79. Rural Trauma: Unique Injuries, Unique Solutions. Combined Idaho, Wyoming, Montana Chapter Meeting, American College of Surgeons, Coeur de Lane Idaho, 2007.
80. Prehospital Management following Injury. Combined Idaho, Wyoming, Montana Chapter Meeting, American College of Surgeons, Coeur de Lane Idaho, 2007.
81. Challenging Trauma Cases. Combined Idaho, Wyoming, Montana Chapter Meeting, American College of Surgeons, Coeur de Lane Idaho, 2007.

82. The Effect of Reclined Seats on Mortality in Motor Vehicle Collisions, American Association for the Surgery of Trauma, Las Vegas, 2007.
83. The Advantages of Drug-Assisted Prehospital Intubation. (Debate vs. D. Hoyt) American College of Surgeons, New Orleans, LA 2007.
84. Clinical Trials of Hypertonic Resuscitation: What's gone wrong?. Resuscitation Science Symposium, American Heart Association, Orlando, FL 2007.
85. Telemedicine in the Treatment of Traumatic Brain Injury. American College of Surgeons, Committee on Trauma, Washington DC, 2008.
86. Management of Thoracic Trauma. Medic One Tuesday Series, Seattle, WA 2008.
87. Management of Necrotizing Soft Tissue Infections. Naval Hospital Grand Rounds, Bremerton, WA 2008
88. End Tidal Capnography in Trauma. American Association for the Surgery of Trauma, Maui, Hawaii, 2008.
89. End Tidal Capnography in Trauma. Medic One Tuesday Series, Seattle, WA 2008
90. Exception from Informed Consent: Practical Implications of Research in the Emergency Setting, American Heart Association, New Orleans, 2008
91. Clinical Trials of Hypertonic Resuscitation: Where are we now? Society of Critical Care Medicine, Nashville, TN, 2009.
92. Clinical Trials of Hypertonic Resuscitation. Invited lecture, Visiting Professor, University of Michigan, Ann Arbor, MI 2009.
93. Issues in the Surgical Management of Abscesses and Deep Tissue Infections. 49<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy, San Francisco, CA 2009.
94. Meet the Expert: Management of Necrotizing Skin and Soft Tissue Infections. 49<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy, San Francisco, CA 2009.
95. Hypertonic Resuscitation following Severe Trauma and Cardiac Arrest. Resuscitation Science Symposium, American Heart Association, Orlando, FL 2009.
96. Prehospital Hypertonic Resuscitation following Traumatic Hypovolemic Shock: A Randomized, placebo-controlled trial. Resuscitation Science Symposium, American Heart Association, Orlando, FL 2009.

97. Hypertonic Resuscitation: Where are we now? Prehospital Fluid Resuscitation Conference, Department of Defense, Dallas, TX 2010.
98. The Disaster Response to the Earthquake in Haiti. Medic One Tuesday Series, Seattle, WA 2010.
99. The Disaster Response to the Earthquake in Haiti. Washington State Governor's Steering Committee for EMS and Trauma, Olympia, WA 2010.
100. Geriatric Trauma: Challenges and Opportunities. Oregon Trauma Conference, Sunriver, OR 2010.
101. Early Management of Traumatic Brain Injury. Oregon Trauma Conference, Sunriver, OR 2010.
102. Geriatric Trauma: Challenges and Opportunities. WWAMI 2010: Current Practices in Adult and Pediatric Trauma Conference, Seattle, WA 2010.
103. Why doesn't Hyperosmolar therapy improve outcome after TBI? National Trauma Institute Conference, San Antonio, TX 2010.
104. Management of Necrotizing Soft Tissue Infections. American Association for the Surgery of Trauma, Maintenance of Certification Session, Boston, MA 2010
105. Lessons learned from the Disaster Response to the Haiti Earthquake. American Association for the Surgery of Trauma, Panel Moderator, Boston, MA 2010
106. The Results of the ROC Trials of Prehospital Resuscitation with Hypertonic Fluids. Combat Casualty Resuscitation: Diagnosis and Intervention Conference, Toronto, Canada, 2010.
107. Fluid resuscitation after severe injury. Resuscitation Rounds, University of Washington, Seattle, WA 2011.
108. Massive Transfusion: What's the Right Ratio? Seattle Surgical Society, Seattle, WA 2011.
109. Increased Neutrophil Adenosine A3 Receptor Expression is Associated with Hemorrhagic Shock and Injury Severity in Trauma Patients, Shock Society, Norfolk VA 2011.
110. Geriatric Trauma: Challenges and Opportunities, Hawaiian Islands Trauma Symposium, Honolulu, HI 2011.
111. Ventilation Management & End Tidal Capnography, Hawaiian Islands Trauma Symposium, Honolulu, HI 2011.

112. The Disaster Response to the 2010 Haiti Earthquake. Hawaiian Islands Trauma Symposium, Honolulu, HI 2011.
113. Update on Thoracic Trauma Management, Hawaiian Islands Trauma Symposium, Honolulu, HI 2011.
114. Rural Trauma: Unique Injuries, Unique Solutions, Hawaiian Islands Trauma Symposium, Honolulu, HI 2011.
115. Predictive Modeling of Injury Severity utilizing Pre-hospital Trauma Triage and Mechanism of Injury Criteria for Advanced Automatic Crash Notification (AACN) Systems. Annual CIREN Conference, NHTSA, Washington DC 2011.
- 116.. Impact of Prehospital Mode of Transport after Severe Injury: A multicenter evaluation from the Resuscitation Outcomes Consortium. American Association for the Surgery of Trauma, Chicago, IL 2011.
117. Meet the Expert Luncheon: Necrotizing Soft Tissue Infections. American College of Surgeons Clinical Congress, San Francisco, CA 2011.
118. Necrotizing Soft Tissue Infections: You Have to Operate! American College of Surgeons Clinical Congress, San Francisco, CA 2011.
119. Fluid Resuscitation after Severe Injury: What's New? Detroit Trauma Symposium, Detroit, MI 2011.
120. Management of Necrotizing Soft Tissue Infections, Detroit Trauma Symposium, Detroit, MI 2011.
- 121.. The Hospital Response to a Terrorist Bombing Event in King County, WA, Tale of Our Cities Conference, Seattle, WA 2011.
122. Trauma Systems and Disaster Planning. Washington State Society of Anesthesiologists, Seattle, WA 2011.
- 123.. Cardiac and Major Thoracic Injuries: From Field to ED Thoracotomy. Medic One Tuesday Series, Seattle WA, 2011.
124. Management of Necrotizing Soft Tissue Infections. Tacoma Joint Trauma Program Grand Rounds, Tacoma, WA 2012.
125. The Local Response to a 9.0 Earthquake and Tsunami, Disaster Planning Symposium, American Burn Association, Seattle, WA 2012.



126. Optimizing Resuscitation after Hemorrhagic Shock. Resuscitation and Critical Interventions Conference, Anchorage, AK 2012.
127. Optimizing Initial Management of Severe Traumatic Brain Injury. Resuscitation and Critical Interventions Conference, Anchorage, AK 2012.
128. Trauma System Adoption of Advanced Automatic Collision Notification (AACN), CIREN Research Conference, NHTSA, Washington DC, 2012.
129. Surviving ED Thoracotomy: It Takes a Team. UW Medicine EMS and Trauma Conference, Seattle, WA, 2012.
130. Resuscitation of Traumatic Hemorrhagic Shock. Bellevue Medic One CME conference, Bellevue, WA, 2012.
131. 9. Optimizing Resuscitation after Severe Injury: What is the Evidence? Air Medical Transport Conference, Seattle, WA 2012.
132. Management of Necrotizing Soft Tissue Infections. Meet the Expert Luncheon, American College of Surgeons, Chicago, IL 2012.
133. Geriatric Trauma: Challenges and Opportunities. Highline Medical Center Grand Rounds, Burien, WA 2012
134. Mechanism of Injury in Motor Vehicle Crashes: What you need to know! Seattle Surgical Society Annual Meeting, Seattle, WA 2013.
135. Geriatric Trauma: Challenges and Opportunities. St Mary's Medical Center Trauma Conference, Walla Walla, WA 2013.
136. Geriatric Trauma: Challenges and Opportunities. Medic One Trauma Symposium, Seattle WA, 2013.
137. Damage Control Resuscitation. Southeast Regional Alaskan EMS Conference, Sitka AK 2013
138. Resuscitation of Shock in the Trauma Patient. Southeast Regional Alaskan EMS Conference, Sitka AK 2013
139. Geriatric Trauma: Challenges and Opportunities. Southeast Regional Alaskan EMS Conference, Sitka AK 2013
140. Geriatric Trauma: Challenges and Opportunities. Western Montana Trauma Conference, Missoula, MT 2013

141. Massive Transfusion: What's the right ratio? Western Montana Trauma Conference, Missoula, MT 2013
142. Rural Trauma: Unique Injuries/Unique Solutions Western Montana Regional Quality Improvement Conference. Missoula, MT 2013
143. Massive Transfusion: What's the Right Ratio? Washington State Trauma Nurse Network meeting, Seattle WA 2013.
144. Management of Necrotizing Soft Tissue Infections, A QI Review. Kadlec Medical Center, Richland, WA 2013.
145. What do Trauma Surgeons want from Radiology, Emergency Radiology Symposium, Seattle, WA 2013.
146. Lessons Learned from the Crash Injury Research and Engineering Network. Department of Surgery Grand Rounds, University of Washington, Seattle, WA 2013.
147. Management of Earthquake Injuries. UW Medicine EMS and Trauma Conference, Seattle, WA 2013.
148. Geriatric Trauma: Challenges and Opportunities. Mason County Regional Medic meeting, Shelton, WA 2013.
149. The New Field Trauma triage Guidelines. Mason County Regional Medic meeting, Shelton, WA 2013.
150. Geriatric Trauma: Challenges and Opportunities. Northwest Region EMS meeting, Bremerton, WA 2013.
151. Evaluating the Benefits of Advanced Automatic Crash Notification. CIREN National research Conference, Washington DC, 2013.
152. Pediatric Penetrating Trauma. Medic One Tuesday Series (Paramedic CME). Seattle, WA 2014.
153. Development of an Evidence-based Guideline for External Hemorrhage Control. NAEMSP National Evidenced-based Guideline Development Stakeholder meeting, Tuscon, AZ 2014.
154. Development of an Evidence-based Guideline for External Hemorrhage Control. DHS Federal stakeholder meeting to improve outcome from mass shootings and IED explosions, Washington DC, 2014.
155. Massive transfusion: What's the Right Ratio, Yakima Memorial Valley Hospital and Yakima Regional Medical Center, Yakima WA, 2014

156. Trauma Systems and Regionalized Care, Russo CME Conference, Yakima WA 2014.
157. Infections at Sea: The Cruise from Hell, Medical Disaster Response Symposium, Las Vegas, NV 2014
158. Early Control of Shock: Limited EMS/ER Crystalloids: Trauma, Critical Care, and Acute Care Surgery Conference, Las Vegas, NV 2014.
159. Trauma and Acute Care Surgery Case Management panel, Trauma, Critical Care, and Acute Care Surgery Conference, Las Vegas, NV 2014.
160. Geriatric trauma: Challenges and Opportunities: Rimrock Trauma Conference, Billings, MT 2014.
161. Shock Resuscitation and Massive Transfusion: Rimrock Trauma Conference, Billings, MT 2014
162. Management of Earthquake-related Injuries. NDMS Disaster team training, Anniston, AL 2014.
163. Massive Transfusion: What's the Right Ratio? Skagit Valley Hospital CME program, Monroe, WA 2014
164. Management of Necrotizing Soft Tissue Infections. Meet the Expert Luncheon, American College of Surgeons, San Francisco, CA 2014.
165. Hypertonic Resuscitation: Lessons Learned. Pacific Northwest PETAL conference, Seattle, WA, 2014.
166. Mass Casualty Management and Disaster Preparedness. Mini-Med School Lecture, University of Washington, Seattle, WA 2015
167. Management of Exsanguinating Hemorrhage, Medic One Tuesday Series, Seattle, WA 2015
168. Massive transfusion: What's the Right Ratio? Providence Centralia & Providence St. Peter's Hospital Grand Rounds, Centralia, WA 2015.
169. The Impact and Progression of Organ Dysfunction in Patients with Necrotizing Soft Tissue Infections. Surgical Infection Society, Los Angeles, CA, 2015.
170. Massive Transfusion: What's the Right Ratio? Highline Medical Center Trauma Grand Rounds. Burien, WA 2015.

171. Massive Transfusion and the Role of Tranexamic Acid following Injury, South Central Region Trauma Quality Improvement meeting, Richland, WA 2015.
172. Necrotizing Soft Tissue Infections: What's New? Oregon-Washington State Chapters of the American College of Surgeons meeting, Suncadia, WA 2015.
173. Resuscitation of the Multisystem trauma patient with severe TBI. AO Neuro TBI CME course, Bellevue, WA , 2015.
174. Management of Exsanguinating Hemorrhage, Mason County Paramedic CME, Shelton, WA, 2015.
175. Massive Transfusion and the Role of Tranexamic acid for Trauma Patients, Fairbanks Medical Center Grand Rounds, Fairbanks, AK 2015.
176. Geriatric Trauma Challenges and Opportunities, Rocky Mountain Rural Trauma Symposium, Billings MT 2015
177. Motor Vehicle Crashes: Mechanism of injury, What you need to know. Rocky Mountain Rural Trauma Symposium, Billings, MT 2015
178. Management of Exsanguinating Hemorrhage, UW Medicine EMS and Trauma Conference, SeaTac, WA 2015.
179. Integration of Automatic Crash Notification into Trauma Systems. UW Medicine EMS and Trauma Conference, SeaTac, WA 2015.
180. Necrotizing Soft Tissue infections: Delay in Diagnosis. NSTI Time Matters Panel session, Speaker and Co-Moderator, American College of Surgeons Clinical Congress, Chicago, IL 2015
181. Necrotizing Soft Tissue infections: Emerging bacterial resistance, American College of Surgeons Clinical Congress, Chicago, IL 2015
182. Meet the Expert Luncheon: Necrotizing Soft Tissue Infections. American College of Surgeons Clinical Congress, Chicago, IL 2015
183. Challenging Trauma Case Panel. American College of Surgeons Clinical Congress, Chicago, IL 2015
184. Massive Transfusion Protocols and the Role of Tranexamic Acid. Olympic Memorial Trauma Symposium, Port Angeles, WA 2015
185. Massive Transfusion Protocols and the Role of Tranexamic Acid, Whidbey General Hospital. Coupeville, WA 2015.

186. The role of Hypothermia in Trauma, American Heart Association, Resuscitation Science Symposium, Orlando FL, 2015
187. Trauma: A Year in Review, American Heart Association, Resuscitation Science Symposium, Orlando FL, 2015
188. Pain Management following Chest Wall Injury. ACS Trauma Quality Improvement Project meeting, Nashville, TN 2015
189. Massive Transfusion Protocols and the Role of Tranexamic Acid, Providence Everett Medical Center, Everett, WA 2015.
190. Development of a Novel therapy for Necrotizing Soft Tissue Infections, Schilling Research Symposium, Seattle, WA 2016
191. Mass Casualty and Disaster Management, Southeast Alaska Regional EMS Conference, Sitka , AK 2016.
192. Challenging Rural Trauma Cases, Southeast Alaska Regional EMS Conference, Sitka , AK 2016.
193. Management of Chest Wall Injury: A Rib fracture pathway, Southeast Alaska Regional EMS Conference, Sitka , AK 2016.
194. Mechanism of Injury following Motor Vehicle Collisions: What you need to know. Southeast Alaska Regional EMS Conference, Sitka , AK 2016.
195. A Rib Fracture Management Pathway, Providence Everett Medical Center, Everett, WA 2016.
196. Harnessing your Passion: The Secret to Leadership. UW Medicine Leadership Development Institute, Seattle, WA 2016.
197. Injuries Associated with Child Restraint Misuse. Western Pediatric Trauma Conference, Snowmass, CO 2016
198. Debate: Why Adult Trauma Surgeons should Care for Injured Children. Western Pediatric Trauma Conference, Snowmass, CO 2016.
199. Rib Fracture Management Pathway, UW Medicine EMS and Trauma Conference, Tukwilla, WA 2016.
200. Update and Strategic Direction of the ACS Committee on Trauma, ATLS Europe meeting, Oslo, Norway, 2016.

201. Management of the Anticoagulated Patient with Active Hemorrhage, Speaker and Moderator for Panel Session, American College of Surgeons Clinical Congress, Washington DC, 2016.
202. Implementation of the NASEM Report: Trauma Research, American College of Surgeons Clinical Congress, Washington DC, 2016.
203. Necrotizing Soft Tissue Infections, Meet the Expert Lunch, American College of Surgeons Clinical Congress, Washington DC, 2016.
204. Geriatric Trauma: Challenges and Opportunities. Totally Trauma Conference, Monterey, CA, 2016.
205. Extracorporeal Life Support in Adults. Medic One Tuesday Series, Seattle, WA 2016.
206. Extracorporeal Life Support in Adults. Lab Medicine Grand Rounds, Seattle, WA, 2016. Recorded: UW TV: <https://youtube/FQXczlkMvoQ>
207. What's the Role of FAST in Pediatric Patients? ACS Trauma Quality Improvement Program Annual Meeting, Orlando, FL 2016.
208. Early Resuscitation Priorities for the Trauma Patient. Detroit Trauma Symposium, Detroit, MI 2016.
209. Optimizing the Field Triage of Trauma Patients. Detroit Trauma Symposium, Detroit, MI 2016.
210. Management of Necrotizing Soft Tissue Infections: What's New? Detroit Surgical Society Dinner, Detroit, MI 2016.
211. Monitoring Cerebral Metabolism after Traumatic Brain Injury, Resuscitation Science Symposium, American Heart Association, New Orleans, LA 2016.
212. Validation of a Clinical Trial Composite Endpoint for Patients with Necrotizing Soft Tissue Infections. Eastern Association for the Surgery of Trauma, Ft Lauderdale, FL 2017.
213. Trauma Research Funding and Direction. Strategic Conference on Implementation of the NASEM report. American College of Surgeons, Washington DC, 2017.
214. Optimizing Field Triage for Trauma Patients. Seattle Medic One Tuesday Series, Seattle, WA 2017.
215. Lessons Learned from the Crash Injury Research and Engineering Network. Grand Rounds & Visiting Professor, University of South Alabama, Mobile, AL, 2017.

216. Implementation of the NASEM Report: Trauma Research. American College of Surgeons Committee on Trauma Spring Meeting. Washington DC, 2017.
217. Trauma Research Funding and Direction. Achieving Zero Preventable Deaths: Building a National Trauma Care System and Research Action Plan, speaker and session moderator. Bethesda, MD, 2017.
218. Resuscitation of Hemorrhagic Shock. Inland Trauma Conference, Spokane, WA, 2017.
219. Extracorporeal Life Support for Adults. WA American College of Emergency Physicians Summit to Sound Northwest Emergency Medicine Assembly, Seattle, WA 2017.
220. Necrotizing Soft Tissue Infections-Podcast #80. Eastern Association for the Surgery of Trauma. <http://www.east.org/education/online/traumacasts/detail/118/necrotizing-soft-tissue-infections> 2017.
221. Extracorporeal Life Support for Adults. Resuscitation and Critical Interventions Symposium, Anchorage AK, 2017.
222. Massive transfusion: What's New? Resuscitation and Critical Interventions Symposium, Anchorage AK, 2017.
223. Geriatric Trauma: Challenges and Opportunities. University of Alabama Birmingham Trauma & Burn Lectureship, Grand Rounds & Visiting Professor, Birmingham, AL 2017.
224. Optimizing Prehospital Care through Research. University of Texas Houston, Department of Surgery Grand Rounds, Houston, TX 2017.
225. The Story of Hypertonic Saline. University of Texas Houston, Department of Surgery Research Conference, Houston, TX 2017.
226. Challenging Trauma Cases: Here and Abroad, Panel Moderator, American College of Surgeons Clinical Congress, San Diego, CA 2017.
227. Necrotizing Soft Tissue Infections: Meet the Expert session, American College of Surgeons Clinical Congress, San Diego, CA 2017.
228. Optimizing Field Triage for Trauma Patients. Boyle Lecture, University of Iowa, Iowa City, IA 2017.
229. Management of Exsanguinating Hemorrhage: What's New? Tacoma Trauma Conference, Tacoma, WA 2017.



230. Necrotizing Soft Tissue Infections of the Abdominal Skin, Soft tissues, and Perineum. SSAT/AAST/SAGES Winter course on GI Surgical Emergencies: Challenges and Opportunities. Las Vegas, NV 2018.
231. Optimizing Prehospital Trauma Care through Research. H. David Root Lectureship, UT San Antonio, San Antonio, TX 2018.
232. Optimizing Prehospital Trauma Care through Research. Maryland Shock Trauma, Department of Surgery Grand Rounds, Baltimore, MD 2018.
233. Trauma Systems as the Framework for Disaster Response. National Academies of Sciences Engineering and Medicine, Washington DC 2018.
234. Management of Necrotizing Soft Tissue Infections; What's New? Scientific Guest Speaker, Texas Surgical Society, Houston, TX 2018.
235. Lessons Learned from the Crash Injury Research and Engineering Network. Scientific Guest Speaker, Texas Surgical Society, Houston, TX 2018.
236. Patient Selection for Damage Control versus Definitive Control, Panel on the Management of the Perforated Viscus, Society of Alimentary and Gastrointestinal Surgeons, Seattle, WA 2018.
237. Geriatric Trauma Challenges and Opportunities, Inland Trauma Conference, Spokane, WA 2018.
238. Optimizing Prehospital Trauma Care through Research, Hechtman Trauma Lecturer, Brigham and Women's Hospital, Boston, MA 2018.
239. Optimizing Prehospital Trauma Care through Research, George Washington University Department of Surgery Grand Rounds, Washington DC, 2018.
240. Extracorporeal life support for Trauma Patients. Argentinian Chapter of the American College of Surgeons Trauma Symposium, Buenos Aires, Argentina, 2018.
241. The ACS Committee on Trauma: Vision for the Future, Region 14 Committee on Trauma meeting, Buenos Aires, Argentina, 2018
242. Optimizing Prehospital Trauma Care through Research, H. Harlan Stone Lecture in Trauma, Emory University, Atlanta, GA 2018.
243. Trauma Systems as the Framework for a Regional Disaster Response System. National Disaster Medical System Training Summit. Atlanta GA, 2018.
244. Development of a National Trauma Research Action Plan. Military Health System Strategic Partnership ACS meeting, Chicago, IL 2018.

245. Challenging ECMO cases: Panel presentation. UW Medicine EMS and Trauma Conference, Seattle, WA 2018.
246. Women in Trauma Surgery, Panamerican Trauma Society, Cartagena, CO 2018.
247. Inequities in Trauma Care Across the Globe, Panamerican Trauma Society, Cartagena, Columbia, 2018.
248. Extracorporeal Life Support: When to stop? Panamerican Trauma Society, Cartagena, Columbia, 2018.
249. Future women surgeons: What are the challenges for young millennials? Panamerican Trauma Society, Cartagena, Columbia, 2018
250. Component therapy for Massive Transfusion. Panamerican Trauma Society, Cartagena, Columbia, 2018.
251. The ACS Committee on Trauma: Our Vision for the Future, ATLS Europe Region XV meeting, Paphos, Cyprus. 2018.
252. Mechanism of Injury after Motor Vehicle Crashes: What you need to know, Virginia Mason Surgical Society, Seattle, WA 2018.
253. The ACS Committee on Trauma: Our Vision for the Future, Region 2 COT meeting, San Juan, Puerto Rico, 2018.
254. The ACS Committee on Trauma: Our Vision for the Future, Region 16 COT meeting, Kuala Lumpur, Malaysia 2018.
255. Trauma QI from Center to System. Trauma Quality Improvement Project meeting, Anaheim, CA 2018.
256. The Future of EMS and the National Trauma System. World Trauma Symposium, National Association of EMTs, Nashville, TN 2018.
257. Trauma: Achieving Zero Preventable Deaths. Surgical Critical Care Update, American College of Surgeons Clinical Congress, San Diego, CA 2018
258. Necrotizing Soft Tissue Infections: Challenging cases. Speaker and Panel Moderator, American College of Surgeons Clinical Congress, San Diego, CA 2018
259. The National Trauma Research Action Plan: What is it? Extremity War Injury Meeting, Washington DC, 2019.

260. Set yourself up for Success: Understanding Promotion and Leadership Portfolio. EAST Leadership Development Institute, Austin, TX 2019.
261. Planning for the Future. EAST Resident and Fellow Workshop, Austin, TX 2019.
262. Optimizing Prehospital Trauma Care through Research. Georgia Trauma Foundation Conference, Atlanta, GA 2019.
263. Resuscitation following Severe Injury. University of Washington EMS Fellows Grand Rounds, Department of Emergency Medicine, Seattle, WA 2019.
264. Trauma Systems: Lessons in Leadership & Complex Problem Solving. University of Washington Department of Surgery Grand Rounds, Seattle, WA 2019.
265. Trauma Systems as the Framework for Disaster Medical Response. National Association of City and County Health Officials Preparedness Summit, St Louis, MO, 2019.
266. Optimizing Prehospital Trauma Care through Research. University of California, San Diego, Department of Surgery Grand Rounds, San Diego, CA 2019.
267. The Strategic Direction of the Committee on Trauma, Tennessee Trauma Symposium, Chattanooga, TN 2019.
268. Challenging Rural Trauma Cases Panel, Moderator, UW EMS and Trauma Conference, Seattle, WA 2019.
269. The Power of Connectedness, Acute Care Surgery: Ensuring the Success of the Next Generation Session, American Association for the Surgery of Trauma, Dallas, TX 2019.
270. An Approach to Eliminate Preventable Death and Disability from Injury. Rutgers-New Jersey Medical School, Department of Surgery Grand Rounds, Newark, NJ 2019.
271. Optimizing Prehospital Trauma Care through Research. Georgia EMS Association Conference, Savannah, GA 2019
272. Clinical use of REBOA. ATLS European Association Meeting, Tallinn, Estonia 2019.
273. Region 15 COT Update. ATLS European Association Meeting, Tallinn, Estonia 2019.
274. How can we Improve Outcomes for Patients with Necrotizing Soft Tissue Infections. American College of Surgeons Clinical Congress, San Francisco, CA 2019.
275. Optimizing Prehospital Trauma Care through Research. Erwin Thal Lecture, UT Southwestern, Dallas, TX 2019.

276. Harnessing your Passion and Connecting to Purpose. Oriens Lecture. Eastern Association for the Surgery of Trauma, Orlando, FL 2020.
277. Trauma System Development: Challenges and Opportunities. Hamad Medical Center Trauma Grand Rounds, Doha, Qatar, 2020.
278. The Stop the Bleed Program: Preparing for Mass Casualty Response, Qatar Health 2020, Doha, Qatar, 2020.
279. Harnessing your Passion and Connecting to Purpose, Aga Khan University 6<sup>th</sup> Sense Forum, Karachi, Pakistan, 2020.
280. Keeping Your Cool: What does it take to be a trauma surgeon?, Aga Khan University, Medical Student Forum, Karachi, Pakistan, 2020.
281. Trauma System Development: Challenges and Opportunities, Abu al-Qasin al-Zahrawi Oration, 5<sup>th</sup> Annual Aga Khan University Surgical Conference: Trauma, Striving for Change, Karachi, Pakistan, 2020.
282. Management of Hemorrhagic Shock due to Pelvic Fracture Bleeding, 5<sup>th</sup> Annual Aga Khan University Surgical Conference: Trauma, Striving for Change, Karachi, Pakistan, 2020.
283. Burn Blast Injury: Acute Management Issues, 9<sup>th</sup> International State of the Science Meeting: Mitigating the Impact of Blast-related Burn Injuries: From prolonged field care to rehabilitation and resilience, Rand Corporation, Washington DC, 2020.
284. The Integration of Adult and Pediatric Trauma Center Care, Templeton Pediatric Trauma Symposium, Philadelphia, PA 2020.
285. A Novel Immune Modulator for Patients with Necrotizing Soft Tissue Infections (NSTI): Results of a Multicenter, Phase 3 Randomized Controlled Trial. Accepted for Podium presentation, American Surgical Association, April 2020 (meeting cancelled due to COVID-19 Pandemic)
286. The COVID 19 Healthcare Response: Maintaining the Emergency Care System. COVID-19 and surgery: Challenges and the American College of Surgeons Guidelines during the Outbreak, Saudi Commission for Health Specialties Webinar, April 2020, 3900 attendees
287. Panel Discussion: COVID-19 and Trauma, Trauma Center Association of America Webinar, March 30, 2020
288. Panel Discussion: Organizing the Trauma Center Response to COVID-19, American College of Surgeons Trauma Quality Improvement Program Webinar, May 2020.

289. The Role of a Regional Medical Operations Center in the COVID-19 Response. American Association for the Surgery of Trauma-Virtual Grand Rounds, May 2020
290. Resuscitation for Severe Traumatic Injury. Tuesday Series: Paramedic Training Conference, King County, WA, June 2020.
291. Pelvic Fracture Hemorrhage: Where should we go from here? American Association for the Surgery of Trauma Annual meeting, Virtual September, 2020 (Debate with Dr. Burlew)
292. Regional Coordination of the Healthcare Response to COVID, ACS Quality and Safety Conference, Virtual, 2020.
293. The Importance of Regional Coordination of the Healthcare Response to the COVID-19 Pandemic. American Association for the Surgery of Trauma Annual Meeting, Virtual, September 2020
294. Reflections on Burnout, American Association for the Surgery of Trauma Annual Meeting Panel session, Virtual, September 2020
295. The Importance of Regional Coordination of the Healthcare Response to the COVID-19 Pandemic. Henry Harkins Symposium, University of Washington, September, 2020
296. Trauma Center Care during the COVID-19 Era. All Levels Trauma Care International Conference (Virtual) Saudi Arabia, November 2020.
297. Leadership in Trauma: How to Crack the Glass Ceiling. Women in Trauma Surgery Session, All Levels Trauma Care International Conference (Virtual) Saudi Arabia, November 2020.
298. What is CNTR? Webinar for the Coalition for National Trauma Research, November 2020.
299. The Management of Necrotizing Soft Tissue Infections. Northwest Hospital Grand Rounds, Seattle, WA, November 2020
300. TQIP Academy: Maintaining Excellence. 2020 TQIP Annual Scientific Meeting and Training, Virtual, December 2020.
301. Disaster Preparedness, Mass Casualty and Trauma Management: Early Lessons from Beirut, Webinar sponsored by the American College of Surgeons, September 2020.
302. Improving Social Determinants to Attenuate Violence Panel Session (Moderator) American College of Surgeons Clinical Congress, Virtual October 2020

303. Surgeons as Leaders in Disaster Response. American College of Surgeons Clinical Congress, Virtual October 2020
304. Early Resuscitation Priorities for EMS. Mason County EMS Continuing Education meeting, Shelton, WA 2020
305. Mechanisms of Injury after Motor Vehicle Collisions: What you Need to Know. Mountain to Sound Critical Care Nursing Conference, Virtual, 2020.
306. Maintaining Excellence: A Standardized Approach to Trauma Care. TQIP Academy Panel Discussion. ACS Annual TQIP Conference (Virtual), December 2020
307. The Post-Pandemic Trauma Center Verification Process. Qatar Health 2021 (Virtual), January 2021
307. Trauma Center Pandemic Response: lessons Learned from Seattle. Qatar Health 2021 (Virtual), January 2021
308. A Public Health Approach to Firearm Injury Prevention. Meet the Masters Session, AAST Fellowship Education, February 2021.
309. The Importance of Regional Coordination of the Healthcare Response to the COVID-19 Pandemic. HHS/ASPR Project ECHO: COVID-19 Clinical Rounds: Critical Coordination of COVID, Trauma, and the Emergency Health Care System, March 2021.
308. The Burden of Firearm Injury in the US. University of Washington, MolMed 504 Challenges in Molecular Medicine: trauma and the Biologic Response to Injury. April 2021
310. Managing a Regional Trauma Center during the combination of a Pandemic and Civil Unrest. American Trauma Society, April 2021.
311. How can we Eliminate Preventable Death and Disability following Injury? Department of Surgery, Icahn School of Medicine at Mount Sinai, Grand Rounds, April 2021
312. A Public Health Approach to Firearm Injury Prevention. American Surgical Association 141<sup>st</sup> Annual meeting (virtual), President's Forum, April 2021.
313. What is the Role of the ACS Committee on Trauma in advancing Careers in Trauma Surgery Worldwide? European Society for Trauma and Emergency Surgery (Virtual meeting) April 2021.
314. Modulation of the Inflammatory Response to NSTI. European Society of Clinical Microbiology and Infectious Diseases, Post-Graduate Course: Cutting Edge: improving survival rates of severe skin and soft-tissue infections. May 2021.

315. A Public Health Approach to Firearm Injury Prevention. Trauma Center Association of America (virtual meeting), May 2021.
316. Trauma Care during the COVID-19 Pandemic, Seattle Chest Conference, May 2021
317. Leadership Transformation: Translation into Policy. ACS Resident Associate Society Leadership Forum, May 2021.
318. To TEG or not to TEG in Pediatric Massive Transfusion, Western Pediatric Trauma Conference (virtual meeting), July 2021.
319. The role of the ACS Committee on Trauma in Advancing Trauma Care Careers Worldwide? International Association for Trauma Surgery and Intensive Care (virtual meeting), September 2021.
320. Taking your Research to the Next Level, What can CNTR do for you? (Panel moderator and Speaker) American Association for the Surgery of Trauma, Atlanta, GA, September 2021.
321. What's New at the Committee on Trauma? Arizona Trauma Association Annual Meeting (virtual) October 2021.
322. Firearm Injury Prevention: The Voice of the Patient, Clinical Congress of the American College of Surgeons, Panel moderator, 2021 (virtual meeting)
323. A Public Health Approach to Firearm Injury Prevention: Where are we now? Detroit Trauma Symposium, Detroit, MI, November 2021.
324. Trauma Systems as the Framework for Disaster & Pandemic Response: The value of Regional Coordination. Detroit Trauma Symposium, Detroit, MI, November 2021.
325. How do we Eliminate Preventable Death and Disability from Injury? Grand Rounds, Department of Surgery, University of California-Irvine, October 2021.
326. Managing a Trauma Center during Civil Unrest, Tacoma Trauma Conference, November, 2021 (virtual meeting).
327. How do we Eliminate Preventable Death and Disability from Injury? Hiatt lectureship, Grand Rounds, Department of Surgery, Cedars-Sinai Medical Center, Los Angeles, CA, November 2021.
328. Meet the Expert Panel, Eastern Association for the Surgery of Trauma, Austin, TX, January 2022.



329. Virtual Verification Visits: Reviewer Recommendations. Qatar Health Trauma Symposium, February 2022 (virtual meeting).
330. The History of the Regional Committees on Trauma, American College of Surgeons Committee on Trauma 100th Anniversary Celebration, Seattle, WA March 2022.
331. A Public Health Approach to Firearm Injury Prevention *and* Optimizing Prehospital Trauma Care through Research, Gulf Coast Trauma Symposium, Mobile, AL, March 2022.
332. A National Trauma and Emergency Preparedness Systems, American College of Surgeons Leadership and Advocacy Summit, Washington DC, April 2022
333. “Lessons from one of my most difficult Trauma Cases”, “Top 5 Pediatric Trauma Papers 2020-2022”, “Pitfalls in the Management of Complex Extremity Injuries”, “Women in Trauma Surgery: Advancing our Profession through International Collaboration”, European Congress for Trauma and Emergency Surgery, Oslo, Norway, April 2022
334. What’s New in the Management of Necrotizing Soft Tissue Infections? Grand Rounds, Department of Surgery, Boston University School of Medicine, Boston, MA, May 2022
335. Optimizing Prehospital Trauma Care through Research. George H. Clowes, Jr Visiting Professor Trauma Lecture, Boston University School of Medicine, Boston City Hospital, Boston, MA 2022
336. A Public Health Approach to Firearm Injury Prevention. Battistella Memorial Lecture, University of California Davis, Sacramento, CA 2022
337. How Can we Eliminate Preventable Death and Disability after Injury in the Hospital? UW Medicine EMS and Trauma Conference, Seattle, WA 2022.
338. Taking your Research to the Next Level, What can CNTR do for you?, American Association for the Surgery of Trauma Meeting, Chicago, 2022.
339. Screening Trauma Patients for Post-traumatic Stress Disorder. National Trauma Symposium, New Zealand, 2022.
340. National Guideline for the Field Triage of Injured Patients. EMS World Expo, National Association of EMTs, Orlando, FL 2022.
341. The Scudder Oration on Trauma: Wisdom through the Ages, American College of Surgeons Clinical Congress, San Diego, 2022.
342. The Medical Summit on Firearm Injury Prevention: Building a Sustainable Coalition, American College of Surgeons Clinical Congress, San Diego, 2022.

- 343. How can we Eliminate Preventable Death and Disability after Injury? Grand Rounds, Department of Surgery, University of Arizona, Tucson, AZ 2022.
- 344. A Century of Advancements in Injury Care: Where do we go from here? All Levels Trauma Care Course, Academy of Sciences, Saudi Arabia, 2022.
- 345. A Public Health Approach to Firearm Injury Prevention. Grady Memorial Hospital Trauma Grand Rounds, Atlanta, GA 2023.
- 346. A Public Health Approach to Firearm Injury Prevention. American Trauma Society Webinar, 2023.
- 347. A Century of Advances in Trauma Care. Connecticut Trauma Conference, Hartford, CT 2023
- 348.